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# Galaxy<sup>®</sup>

MAGAZINE

SCIENCE FICTION



APRIL 1969 60¢

## HOW LIKE A GOD

by  
ROBERT BLOCH



## BUCKETS OF DIAMONDS

by  
CLIFFORD D. SIMAK



## WITCH HUNT

by  
JAMES E. GUNN



and many others



APRIL 1969

BLOCH SIMAK GUNN

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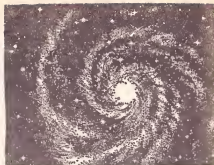
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# Galaxy

## MAGAZINE

ALL STORIES NEW

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Cover by REESE from HOW LIKE A GOD



# THE PROMETHEUS PROJECT

Gerald Feinberg, whom we've mentioned in these pages before, is a professor of physics at Columbia University. What has given him a sort of instant fame in physical circles is his exciting conjecture that the universe comes in two parts — the one we live in, bound by relativistic physics, in which nothing can exceed the speed of light and another one, equally bound by the same laws, but in the other direction: in which nothing can go slower than the speed of light. (There is obviously just the one case in which the two universes intersect, at light velocity itself; and the search for the particles called tachyons which will show whether the conjecture is probable or not is now going on.)

Beyond that, Feinberg's interests are wide. We shared a platform with him at a New York Academy of Sciences symposium a year or so ago and heard him speak at length on the implications of science and technology on the human condition. Now he has put some of those thoughts on paper, and they are available in

the form of a book called *The Prometheus Project*, published by Doubleday.

What is "the Prometheus Project?" It is an organized attempt to search for human goals worth achieving. Feinberg's hope is to establish an on-going foundation whose entire function is in publicizing, discussing, clarifying — and ultimately, hopefully, achieving — some of those goals.

Will it work? Feinberg says: "The search for goals described in this book is my expression of ultimate belief in the existence and power of human rationality. It is part of our finitude that no man controls the forces that have molded the feelings that underlie his moral judgments. Yet it is a part of the glory of being man that we can plan our futures so that our dreams approach reality. There is nothing in the universe we can rely on to consider our welfare except our own reason."

In other words — it's the only game in town. And it's worth a try.

—THE EDITOR

# WITCH HUNT

by JAMES E. GUNN

Illustrated by ADKINS

*The Pilgrim was seeking Truth,  
known only to the Witches. But  
everything he learned led only  
to proof of an ultimate deceit.*

I

The pilgrim stopped on the bridge that spanned the muddy river and leaned on his green staff. The original bridge had been constructed of rein-

forced concrete and resurfaced many times with asphalt, but the roadway had fallen into the river in places and the entire span had been recovered with rough beams of wood.

Beyond the end of the bridge

the market town began. The pilgrim could not put a name to it. Some market towns in this part of the Empire had squares; others had broad main streets. This one had a broad main street.

Although there never was one shop that looked quite like another, the shops in one market town looked exactly like those in the next. A few stone and brick structures remained from before the time of starvation, but most of the shops had been built since the time of troubles. They had been put together with salvaged beams and boards mixed with new, uncured planks that disliked their neighbors. The timbered houses had upper stories that overhung the streets.

The pilgrim turned and looked back the way he had come. The highway crumbled its way out of sight in the distance. Out there somewhere it crossed under the four-lane turnpike he had followed much of the way from Denver. From here the pilgrim could see the high bridge of the turnpike which spanned the entire river in one clear arch but whose roadway was completely gone, leaving little but a lacy iron skeleton. The pilgrim had crossed it rather than work his way through the ruins and the underbrush.

He had come to the timbered bridge along the highway, past old buildings fallen in upon them-

selves, past ancient middens in which, if he dug, he would find much rust, much broken glass, and strange, indestructible objects of materials no longer found in nature.

The pilgrim's face was gaunt under the gray cowl. A scar from a recent wound crossed his right cheek. His eyes were watchful and observant.

It was time to forget the past for the moment, he thought, and concern himself with the future. He stepped off the bridge into the town and wondered what wisdom it would bring him.

The noise of the town reached him first, a muted roar that seemed to the pilgrim, after his long absence from civilization, like a voice from a single throat. It grew louder as he walked toward it and then began to differentiate into individual voices: peddlers crying their wares, shoppers bargaining with shopkeepers, quarrelers shouting at each other, musicians competing for gratuities, beggars soliciting alms, blacksmiths, tinsmiths, copper-smiths hammering out their wares . . .

The smell of the town came to him, a strong odor of sweat, spices, and decay. A gout of fluid splashed at the pilgrim's feet. He looked up and saw a basin disappearing into an overhead window

and a shutter, closing, and he shouted, "Hey, look where you're throwing!"

"Look where you're walking!" He was told in the shrill tones of a woman.

The pilgrim drew up his dampened robe and shrugged. It was the middle of the afternoon, and the fluid that flowed in the gutter likely was washwater, not nightsoil.

And then he was in the town proper, with its shop windows proclaiming what the town lived upon: at the ironmonger's there were scythes and reapers, shears and baling hooks, spades and hoes; at the cooper's there were bee hives and churns, milking stools and pails, hay rakes and kegs; at the wheelwright's there were carts and wheelbarrows; at the chemist's there were horse embrocations and at the cobbler's, heavy shoes and boots for trudging across furrows.

The pilgrim did not look long at the shop windows. Life was swirling around him, as multicolored as oil on water. In the broad main street were villagers in their dirt-stained overalls, shopkeepers in aprons, townsmen and women in fancy bright garments exaggerated in line and ornament, a minstrel or two singing about the old days when men could fly, a band of players posturing and mouthing meaningless words

WITCH HUNT



Thank you, Steve Dodson. Belatedly (due to the double-time syndrome under which we operate) but sincerely.

Today in New York it has been snowing since early a.m., and we are just back from a couple of hours in Washington Square — where a miracle is taking place. Ten inches of fresh snow has made the Square painfully beautiful, the people human and the dogs hysterical. Even if transitory, how pleasing that this daffy, happy, out-of-school madness is the result of an enchantment. It isn't only disasters that bring people together.

Four of us strangers — two young people, one businessman and one little old gray-haired lady — stood and talked for a long time, growing steadily whiter, of dogs and enchantments and books. Someone said, "It's a great day for a rabbit to be home before a fire," and we all immediately knew where we were at.

It was astonishing, and gratifying, to hear how many Ballantine Books come into the discussion. Particularly happy was the enthusiasm for Mervyn Peake, surely one of the most admired and least reviewed (in the regular media) of writers. There was something about the shrouding snow and the silence that brought Peake very much to mind, even though it never snows in Gormenghast. But it is a day for fantasy;

the city shut away by fogs of swirling crystal, no artifacts visible, the manicured park suddenly become a wild place of fallen branches and deep drifts. We have an illusion of hardy individuality simply being here. Why is snow in the city an adventure whereas in the country it's mostly a damn nuisance? We discuss this for a while. Businessman says it's all in the mind — indeed, the whole concept of fantasy is in how you look at things. The lady, very gently. "But you must take care that what's in the mind is not a cliché." Agreed, from the young man, otherwise you couldn't get half the country to go along with a fantasy like Viet Nam. Silence. A gift in our magic.

But not really — today the minds are open, at least the minds of those who have ventured into the park. There is a unity among us. Businessman says rather carefully that the man who fights because he has a belief is no less admirable than the man who refuses to fight because he does not; the reason why he reads fantasy is that most of its heroes are heroic, the issues clear. Look at Cabell, he says, Dunson, Tolkien, Eddison, Robert Graves — the young man is grinning. "They're all non-heros," he says, "they're un-brave, or foolish, or deluded. What they have is the integrity to do what they must despite their weaknesses. So they aren't really fantastic at all. They're real. That's why they speak to you as clearly as they speak to me."

Magic names, magic books, magic day. The day will be gone, but the names and the books remain:  
PEAKE • CABELL • BEAGLE •  
PRATT • LINDSAY • EDDISON •  
TOLKIEN • DUNSANY • MORRIS  
and other enchantments from . BB

resurrected from some ancient classic, mercenaries swaggering with their swords swinging from their hips, an almost naked Luddite stalking a poor frightened blacksmith's apprentice the Luddite had mistaken for a Neo-Scientist, a soldier or two in the Emperor's livery . . .

While he was watching the dazzling display, the pilgrim did not notice the arrival of a cart pulled by a horse until it was abreast of him. He drew back into a doorway, but the cart passed and stopped a little farther down the street where a fight had begun between a mercenary and a soldier over the favors of some painted townswoman. Before the soldiers could pile out of the cart and reach the two, the mercenary had plunged his sword through the soldier and faced the newcomers with his dripping blade cutting circles in the air.

The soldiers stood well away from the sword and leveled their pellet guns at the mercenary. Slowly the mercenary's rage ebbed, and at last he tossed his sword to the sergeant in command of the squad and let the soldiers take him.

The pilgrim did not see where the soldiers took the mercenary or what they did with him. He did not have to see; he knew the Emperor's justice and the

Emperor's mercy. His attention, however, was distracted by a loud roar from the direction of the river, back the way he had come. An open truck loaded with watermelons was sweeping downriver making a spray of water on each side like a thousand legs and a wake behind like that left on a still pond by a giant waterbug. When the truck reached the bridge it nosed over the bank and climbed to street level and came down the street, blowing dust even more furiously than it had blown water.

The people in the street sauntered away toward the shops and turned their backs to the gale, scarcely pausing in their conversations. Then the truck pulled up in front of an open market for garden produce, decreased the volume of its thunder, eased down on its inflated pads, and shut off its witchpower entirely.

In the comparative silence that followed, the pilgrim turned to the shopkeeper behind him and asked, "What do you call this town?"

"Lawrence."

"And this street?"

"People here always have called it Massachusetts, but no one knows why."

"The Allegheny Republic has a place called Massachusetts," the pilgrim said.

"Is that so?" the tradesman

asked politely. "May I sell you a liniment, an embrocation?"

The pilgrim smiled, but the right side of his mouth drew up more than his left, and his expression looked more like a sneer. "I have no horse save shank's mare," he said, "and the last six months have toughened her wonderfully."

From nearby came sounds of scuffling followed by a protest in what sounded like a girl's voice or a young boy's and the rough questions of a man.

"You are a girl!" the man said.

"A woman!" the other responded.

The pilgrim turned toward the street. Not far from him was a figure cowed and robed in gray monk's cloth like himself, but slighter in build and stature. Beside that pilgrim, holding one arm, shaking it for emphasis, was a mercenary with an unruly head of blond hair and a yellow beard.

"You know the difference between a girl and a woman?" the mercenary said. He pulled the other pilgrim close to whisper in an ear.

"None of your business," the pilgrim said.

"But it is the business of every man with every woman," the mercenary said, and laughed.

"You'll never make it around," the pilgrim said.

"I'll die trying, and I'll die happy."

"Try this woman," the pilgrim said, "and you'll never have a chance to try another."

"Pilgrims are supposed to seek experience."

"We seek the truth. Let go my arm."

"Pilgrims are not supposed to be girls."

"There's no law," said the pilgrim, twisting out of his grasp and moving down the street.

"But there is," said the mercenary, striding to catch up, "natural law. What has not been should not be."

"Go away," said the girl. The pilgrim was sure now that it was a girl. He had caught a glimpse of her face as she passed. Not only was it a girl, it was a girl he knew, too well. He had known it even earlier, as he heard her voice. He pulled himself back farther in the doorway.

"Not unless you go with me," the mercenary said, catching her arm again.

"Molest not the pilgrim," said a farmer, gripping and re-gripping a sickle he had been testing at a shop.

"Let the pilgrim go in peace," said another farmer, stepping up beside the first.

"This is no honest pilgrim," the mercenary said. "Look!" He flung back the girl's hood. "It is a

girl masquerading as a pilgrim, profaning the robes she wears."

"I'm an honest pilgrim," the girl said, "seeking the truth as well as any man, and when I find it I will know it as well as any man because I have been to the witch schools and studied well . . ."

The first farmer scratched his neck. "I never knew a girl to be a pilgrim."

"There are many," the girl said, "although not so many in these parts as elsewhere, and not so many as there are men, who can better be spared —"

"I never knew a woman pilgrim either," said the second farmer.

"You see?" the mercenary said cheerily. "You might as well come along with me. You have no future in this pilgrim line." His voice softened. "Come. Even though you look like a boy and are stubborn as a mule, you appeal to me. I'll treat you kindly while we're together and leave you no worse, I do believe, than you are now."

He began to pull her toward a nearby tavern, but she reached up her free hand, snake-like, and sank her fingers into his face. Just as quickly, he swung his right hand and cuffed her to the ground. As she lay on on the decaying rubbery surface,





he brought his right hand to his face, wiped the blood, and looked at it on his fingers.

"I like spirit in a woman but not spite," he said. "But I'll soon beat that out of you."

He reached again for her arm but found his hand blocked by a green staff. The pilgrim was standing half between them.

"Do not interfere, pilgrim," the mercenary said. "I would not willingly injure someone of your calling, but I will not stay my hand from one who gets in my way."

"The girl is a pilgrim," the pilgrim said. "She said so, and I tell you so. And if she were not I would not willingly see you take by force any unwilling woman."

"You are a fool, pilgrim," said the mercenary and reached for his sword.

Before the hilt had parted from the scabbard, the pilgrim's staff had swung around to rap him sharply on the wrist.

"Fight!" came an outcry from up and down the street. "The pilgrim and the mercenary fight!"

The mercenary released the sword handle and nursed his wrist with his left hand. "It's broken, I think, damn you," he said. But as he said it he was lunging toward the pilgrim with a knife in his left hand.

The pilgrim stopped him with a jab of the staff to a spot where

his ribs joined, and then the other end of the staff whipped, whistling, through the air to smack solidly against the mercenary's skull.

The mercenary dropped like a puppet whose strings had been released. He lay in the street, breathing raggedly, senseless.

"Good for you, pilgrim," someone said.

"Soldiers are coming. Better leave," said another.

The pilgrim did not move. He looked down at the girl. She was sitting up, rubbing her jaw. With her cowl down about her shoulders and her brown hair cropped short, she looked as much like a boy as a girl but there was something unmistakably feminine about the contours of her face.

The pilgrim reached his hand down to help her to her feet, but she knocked the hand away and scrambled up without aid.

"You got away," the pilgrim said.

"Obviously. And so did you," the girl said.

"But we can't seem to stay apart."

"Nobody asked for your help," she said.

"Where have I heard this all before?" the pilgrim said. "I've gotten into this frightening habit, and I find myself involved before I know it."

"The soldiers," someone shouted from the crowd. "They're here."

There were six of them, in uniform, fully armed, working their way through the crowd. The pilgrim turned back to the girl, but she was gone and so was the senseless mercenary, who, it seemed, was senseless no longer.

The further progress of the soldiers was blocked by farmers standing shoulder to shoulder.

"Make way," the sergeant said.

"You'll not take the pilgrim," one of the farmers said. "You'll not take one who was only protecting a girl from a mercenary and spilled no blood."

"Make way here in the name of the Emperor!"

"A pilgrim has immunity," said another farmer. "He cannot be tried in the Emperor's courts."

The captain will be the judge of that," the sergeant said. "We will take him in, and if he's innocent he'll be released with no harm."

"You'll not take the pilgrim," the first farmer said.

Above the heads of the soldiers, floating down the street, came a flaming orange ball of witch fire. One of the farmers pointed at it. "The witches have come to claim their own."

The soldiers fidgeted, but the sergeant said, "The witch fire never has been known to harm

anyone. We'll take the pilgrim whether you let us or no. Men, take aim!"

"Wait," the pilgrim said. "Let them through. I'll go with the soldiers. I have no fear of the captain or the Emperor's court."

"You don't know this captain or this court," a farmer muttered. "It'll not be fair or pleasant."

"I wish to go with them," the pilgrim said.

The farmers parted. The soldiers moved between them, grabbed the pilgrim's arms, and hustled him toward the waiting cart.

"Do not mistreat the pilgrim," a farmer called after them, "or the witches will take care of you."

A shudder ran through the two soldiers holding the pilgrim. They feared the witches, but not enough to let the pilgrim loose. They feared the sergeant more, and the sergeant feared the captain. Who did the captain fear?

The pilgrim looked off down the street. The city hall was evidently the old, white stone and red brick building several streets away. Beyond it, built on a hill, he caught the distant glint of a witch's chapel rising above what must be a witch-doctor's villa.

The cart lurched down the street, the witch fire sitting on the right front post. No one dared to brush it aside. And he thought about how his pilgrimage had begun.

It had begun months earlier. The pilgrim walked down the side of the divided highway which in some places, for some forgotten historical reasons, was called a turnpike and in others an interstate. He breathed in the good morning air, winy at this altitude. He enjoyed the warmth of the bright sun, alone in the blue sky. He swung the green staff he had cut in a stream bed a few miles back where he had enjoyed his breakfast of sausage and bread a farmer had given him, washed down with mountain water.

The highway was in good condition here. Although the weeds on each side were chest high, the black rubbery substance with which the ancients covered many of their roads was still relatively intact, marred only by an occasional patch of grass which had grown through a crack.

For the hundredth time since he had started along this great highway that bisected the Central Empire, he wondered how the ancients had built it and all the lesser roads of which relics remained. Perhaps it had not been built by men at all but by witches and witchcraft. The witch-doctors said not. They said that once men used machines that did all the work for them.

And they had died for it, the pilgrim reflected.

The witch-doctor with whom he had studied would not have agreed. "There is no evil in machines," he said once. "There were only evil people who used machines or weak people who were used by them. If you can learn this much, you will know more than all but a few of the people you see around you, for their ancient fears are strong."

"That's not hard to learn."

"You are a strange man," the witch-doctor said. Some people might call you cynical or amoral. I think you are brilliant and have not yet found anything to believe in. And when you do — the universe had better watch out. Others are different. What they cannot understand, what they can never hope to do themselves, is magic — they must consider it magic if they are to live with it at all."

"I think it is time men built machines again. Or they will die, as they have lived, futilely."

"You do not know people," the witch-doctor said. "You must go live among them when you begin your pilgrimage, to get to know them as well as to seek truth, to learn why a few among them can do as you say but the many cannot, and you must decide how to separate the few from the many."

The pilgrim stretched his arms wide as he walked, feeling strangely joyous this bright morning, as if this morning great revelations would come to him, he would find the truth or part of it.

He walked now where strange machines once had hurtled, if the old tales were to be believed, with their cargoes of men and animals and priceless goods. The tales had to be true, he thought, for how else would one explain these roads used now only by an occasional foot traveler, a cart, or a farmer's truck floating to market?

It was ironic, he thought, that the farmers of the Empire rode swiftly and the soldiers of the Empire, even the Emperor Bartlett himself, traveled no faster than a horse could go. But the Emperor had seized trucks and used them briefly and within months they had lost all power and were worthless. Some said that the spell wore off. The Emperor did not believe it. But the brave men who tried to explore the workings of the trucks died horrible, wasting deaths.

Ahead of him the pilgrim saw the beginnings of a wooded area. The highway had fallen into a river, and trees had grown up around it and through it until the roadway had virtually disappeared.

The pilgrim debated trying to find a way around the woods, thought better of it, and made his way between the trees.

The trees were largely cottonwoods and thorny locusts with a few oaks scattered among them. When the wind blew, the cottonwood leaves rustled like sheets of paper being rubbed together. The air which had been clean and clear now was thick with the odor of growing things and the fishy smell of the river.

For a little way into the woods there was a path, but it petered out among the trees and the underbrush, and the pilgrim had to make his way alone. After half an hour he was beginning to think he would have to turn about and try to find his way back to the path when he heard voices ahead and broke from between the trees into a clearing.

In the middle of the clearing was a small house built of roughly sawn boards. It had a thatched roof and a smoking chimney at the rear side. Beyond the house was a small garden plot; a pig was rooting in it. In front of the house was a group of three men wrestling with a girl whose long brown hair swung wildly as she struggled silently with the men. Another man stood at one side and watched. It was he who said quietly, "Let her go. We have a visitor."

The other three swung to face the pilgrim, but one of them continued to grasp the girl's wrists. They were ragged men wearing what had once been the Emperor's uniform. Deserters, the pilgrim thought. Perhaps outlaws in other ways by this time.

"Forgive me for breaking in upon you like this," the pilgrim said. "Please go on with whatever you were doing and I'll go back the way I came."

"We can't let you do that," said the quiet one. "You might bring other people before we're finished here. I think we'll have to tie you up like the old man."

"I don't think I'd like that," the pilgrim said. He noticed that two of the three men who had been struggling with the girl had recent scratches on their faces. "I think we'd all be happier if we went our separate ways."

"You fool!" said the girl. "Let them tie you up!" Her face was earnest and intense and quite pretty, the pilgrim thought, but too willful for his own taste.

"If he will not persuade, we must use stronger arguments," the quiet one said. "Sam, you approach him from the right. Jones, you take the left. I'll be in the middle. If he tries to run he won't get far in the underbrush. Watch the quarterstaff! A man with a quarterstaff may know how to use it."

"It's the worst of bad luck to harm a pilgrim," the pilgrim said, watching their eyes as he talked. The quiet one's eyes were steady and blue and focused unwaveringly on the pilgrim's staff. He had drawn a short sword from his belt and had it in his hand. The one called Jones had shifty little eyes and a ferret mouth at which ferret teeth gnawed continually. He, too, had a sword, but it was raised to strike rather than to thrust like their leader's. The one called Sam looked dumb and sleepy. He had a club.

"Well," said the quiet one, "we aren't trying to harm you, you know, only detain you for a little. And we don't know for sure you are a pilgrim, even if you are wearing a cowl. And, anyway, the way our luck has been running it couldn't get much worse. So, if I were you, I'd throw down that staff before you get hurt — accidentally."

"Speaking of luck, there's some blue witch fire on the chimney now," the pilgrim said.

None of them moved their heads, but the pilgrim thought he detected a flicker of uncertainty and struck. The staff whacked Jones on the wrist, making him drop his sword, and the other end whipped around to thump the leader on the head. But before he could swing the other end against Sam, the club hit the side of

his head and he went down. The last thing he saw, or thought he saw, was the ball of witch fire actually sitting on the chimney.

When the pilgrim awoke, his head throbbed and his shoulders ached. He knew why his head throbbed. His shoulders ached from being pulled back by the hands tied behind him. He opened his eyes, but he couldn't see anything. The air was close and full of the odors of cooking and living, and he decided he was inside the little house. He tried to wriggle upright, but his feet were bound, too.

"So you're awake now," the girl said. Her voice seemed weary and truculent.

But it was close, and the pilgrim wriggled toward it until his body came up against something softer than a wall. "Yes," he said quietly. "Where are they?"

"They've finished with me for the moment," she said, "so now they're getting ready to torture my father to make him tell where he has hidden the gold."

"Why doesn't he tell them?"

"He doesn't have any gold. Nobody has around here any more, but myths survive a thousand fatal blows. The Emperor's soldiers won't believe us, and now these! All my father has is me and a bad heart. Why didn't you stay out of this?"

WITCH HUNT

"I couldn't very well keep from stumbling into this clearing."

"Most people would. They wouldn't come blundering in. If you had peeked cautiously, you could have gone on without harm. We'd all have been much better off."

"I thought I might get a little gratitude for trying to protect you."

"Rot! You were trying to protect yourself."

"True. But why would you have been better off?"

"Those men were deserters, but they weren't beyond decency. All they wanted when they stopped was some food and a kiss or two."

"You were struggling!"

"That's my decision and my responsibility. You had no business making us pay for your actions."

"Suppose they hadn't stopped at a kiss or two?"

"Would I have been any worse off? You are a meddling pilgrim! If you'd only let them tie you up, even then it might have been all right, but you had to be a hero. You sprained the wrist of the mean one and made him meaner. And you stunned the leader who had kept them from going wild, who wanted them to move along. He hasn't said a word since."

"They've raped me three times, and after they kill my father they

are going to kill you and take me with them until they tire of me. And it's all your fault."

"I didn't bring them to this clearing."

"You brought yourself. That's disaster enough."

They lay on the rough floor, back to back. The pilgrim felt the splinters against his cheek, smelled the wood fire burning in the next room, and listened to the sound of the girl's angry breathing.

"Well," he said, "we'd better do something about it."

"What?" she snapped.

"Do you have any feeling left in your fingers? If you do, see what you can make of these knots on my wrist."

"They feel just like a mess of twisted ropes," she said.

"Feel them some more," he urged. "Try to become familiar with them, the way they twist and turn under each other. Memorize them with your fingers. Visualize them in your mind."

"I'm doing it," she said.

"These men were soldiers, and the army teaches its soldiers that there's only one right way to tie a knot. See if you can find a rope end."

"I've got it."

"Does it go under another rope?"

"Yes."

"Then pull on it, firmly and steadily, and pray."

The pilgrim felt the tug of the rope, felt it loosening, and then his hands were free. "Good," he whispered. He sat up and undid the ropes around his ankles and then turned to the girl.

Voices came from the next room.

"The iron's ready. Get the old man."

The pilgrim felt the rope give under his tugging. And then the girl struggled, and the rope tightened again. He slapped her on the shoulder. "Quiet!"

Another voice said, "I can't wake him up."

The ropes around the girl's wrists fell away, and she was trying to get up and hop toward the door. The pilgrim pulled at her bound legs and caught her as she fell, one hand clasped across her mouth. She struggled in his arms.

The first voice spoke again. "He's not asleep. He's dead. Cold."

The girl stopped struggling.

"Now get those ropes off your legs," the pilgrim said, releasing her.

He moved to the door, catching himself as his right leg, asleep, almost crumpled under him. He stood by the door, smelling the wood smoke, flexing his fingers and wiggling his toes.

"Maybe the girl knows something."

"If she does, she won't tell you. She's the most stubborn girl I ever saw."

"Well, let's get rid of the pilgrim, take the girl, and get out of here."

The door opened and firelight spilled into the room, exposing the girl where she sat struggling with the ropes around her legs. She looked up, blinking, and the one called Jones stepped into the room, peering about. "The damned pilgrim's gone," he called back over his shoulder, and the pilgrim hit him and then caught the handle of his sword as he fell to the floor.

The deserter known as Sam already was running forward, and the pilgrim did not underestimate his speed this time. He lunged with the sword's point and caught him in mid-stride. The dull, sleepy eyes looked down at the blade stuck in his chest, and the body crumpled at the knees and fell forward.

The pilgrim wrenched the sword free as it fell and continued his lunge in two swift steps across the floor. He cut down the deserter by the fireplace who was holding a hot poker in his hand. That was the one who had clung to the girl.

The pilgrim looked to the left. The quiet-voiced leader was





standing in the doorway, his sword in one hand, the doorframe in the other. He had a bandage around his head. "Not this time, pilgrim," he said. "I'm not myself." And he disappeared into the night.

The pilgrim turned to follow. As he turned he felt a blow to his right arm. It stung, and he turned, tossing the sword to his left hand, to find behind him the deserter called Jones, a knife upraised to strike again.

The pilgrim cut him across the middle and dropped the sword to clutch his right upper arm. It had begun to burn, and he could feel the blood pour out of it hot and sticky. He squeezed it tight.

"Well," the girl said, standing in the doorway and looking at the bodies in the room, "you are a bloody pilgrim. Is violence your only calling?"

The pilgrim looked at her incredulously, and then a wry smile began to curl the corners of his lips. Only the right side rose a little higher than the left and his smile looked more like a sneer.

He wavered a little on his feet, looked around, and sat down heavily on a crude chair. The girl ran to the bunk to the right of the fireplace. She picked up the hand of her dead father, held it, looked into his face, and turned back to the pilgrim.

"The sly one got you, didn't he," she said. She came to him and pried his fingers away from the wound and spread apart the hole in the rough shirt he wore under his robe. "It's an ugly wound." She rummaged in a cabinet in the corner and came back with a strip of white cloth. "Here," she said, binding it tightly around the arm.

The pilgrim felt a little dizzy.

"Now get up," the girl said briskly, "and let's get you to a witch-doctor. He can give you some powders and have that sewn up so it will heal within a week. Come on, now. Don't fall back."

The pilgrim stood, swaying. "How far is it?"

"Only five miles," she said, and caught him before he sank back into the chair.

### III

The trip through the dark forest was a nightmare of pain and fatigue and dimming consciousness, but at the end of it was light and warmth and comfort.

The witch-doctor's villa looked small from a distance because it was lighted at night, as was the silolike chapel behind it. Up close, however, the villa seemed much larger, and inside it seemed interminable.

It had an odor all its own, a

blend of antiseptics, something that smelled like — the pilgrim could find no word for it but "energy" — and a trace of oil.

"Come in, Susannah," the witch-doctor said after the door had announced them. "Come in, son, and let's have a look at that arm."

Wordlessly, the pilgrim held it out, winced as the witch-doctor detached the girl's bandage, bit his lower lip as the witch-doctor probed at it. But even in his pain the pilgrim was studying the man.

The witch-doctor was dark where the pilgrim's mentor had been fair, and short where his mentor had been tall, but in spite of the difference they seemed as much alike as two men might be. There was about them an aura of inner certainty, as if they had arrived at an answer which explained everything and they need question themselves no longer. Or perhaps, as the farmers thought, they were the favorites of the world's unseen powers and, being all-powerful, could afford to be generous.

"Come into the clinic," the witch-doctor said. "You, too, Susannah. You're a graduate and may see such things. And you, young man, are a pilgrim."

"Yes."

"Where did you study?"

"Near Denver."

"And who was your witch-doctor?"

"He was tall and fair and wise. Witch-doctors have no names."

"Nor do pilgrims, and I will not ask yours."

The witch-doctor eased the pilgrim down flat on a table fashioned from some slick, dull-finished metal the pilgrim had seen only in the witch's villa near Denver. The witch-doctor eased his arm onto a shelf and brought forward from behind the table an object on wheels which fitted entirely over the arm.

"It was a pity about your father, Susannah," the witch-doctor said as his busy hands attached vinelike objects to various parts of the pilgrim's body.

"How did you know about my father?"

"One never asks a witch-doctor how he knows." But he smiled. "We have our ways. You'd better take one of those blue pills on the second shelf there."

"Why?" the girl asked.

"In my day, we used to call them 'morning after' pills. Take one. Those men didn't hurt you, did they?"

"Them?" Her head tossed scornfully. "It would take a hundred like them."

"Good. They can't hurt you, not the real Susannah. Now young man, I can't say this won't

hurt at all, but it won't hurt much." He pressed a button. Something buzzed. You're in good shape. But it will take a little more time for you to recuperate. How long have you been on your pilgrimage?"

"Three months."

"And what have you learned thus far."

"I have not yet found the truth, but I have learned that people are pretty much the same all over, some good, some bad, some kind, some cruel. They all want something, and if they want it too much, they turn bad, and if they don't want anything very much they are the prey of those who do."

"You have learned a good deal. How would you change the world to make it better?"

"You must have more of everything, so people's wants can be more easily satisfied, or you have to rule more firmly so that evil is deterred."

"And suppose there was a place where there was more of everything, but it was a place that took a great deal of getting used to — a place where not everybody could live?"

The pilgrim hesitated.

"That's easy," Susannah said. "You let those live there who can adjust to it —"

"And rule everybody else more firmly," the pilgrim finished.

"A remarkable combination," the witch-doctor said. "There — your arm is ready." He pulled back the object on wheels.

The pilgrim lifted his arm. The pain was gone, there was a new bandage on the wound, and the bleeding had stopped. But his head swam as he sat up.

"I'll take you home," the witch-doctor said. And he ushered them through the seemingly interminable villa which always gave the pilgrim the impression that it had subterranean powers beneath it that throbbed just below the level of audibility. And finally they came to a brightly lighted room in which sat a miniature version of the farmer's truck except that it was slimmer.

The witch-doctor and Susannah helped the pilgrim into a front seat and then got in on either side of him. In front of them a wall opened up and with a quick roar and a whoosh of air the witch's broom took off for a quick ride through the dark paths of the forest.

As they left the clearing in which the witch-doctor's villa was located, the pilgrim turned to take one last look. The villa stretched across between the trees, and the tall, pointed chapel was behind.

"What do you see?" asked the witch-doctor.

"An enigma," the pilgrim said and was silent.

At the cabin, the witch-doctor and Susannah helped the pilgrim get out and into a bunk. He was asleep almost before his head touched the corn-shuck mattress. Minutes later — or perhaps it was hours — he was awakened by someone entering the house. He felt for his staff and found nothing. He turned on his side and groaned as his arm stabbed him with pain. Then he opened his eyes and saw Susannah. She was standing in front of the fire, leaning on a shovel and gazing into the flames.

"Where have you been?"

"Outside."

"What have you been doing?"

"Burying," she said.

And he nodded and turned on his back and went to sleep again.

A week later his arm had healed. He could swing it freely without pain, and there was only a pink scar where the knife wound had gaped. The pilgrim walked out into the clearing and stretched in the sunshine.

"You're well," said the girl, behind him.

The pilgrim nodded. "Time to continue my pilgrimage."

"That's what pilgrims must do," she said.

The pilgrim wondered if there was a note of wistfulness in her

voice. If there was he would ignore it. She had been pleasant enough during their seven days together. She had cooked their meals, cleaned the cabin, tended to his wound, hoed the garden. And she had hummed as she did these things. It was all too cozy.

The pilgrim did not trust anyone, particularly women who enjoyed labor. They must have motives, he thought, and he suspected motives, even his own.

He went to a nearby oak tree and cut himself another green staff about six feet long. He held it experimentally, his left hand about a quarter of the way from the end, the right hand about the middle, and maneuvered against a cottonwood sapling, ending with a solid and potentially crippling blow to the sapling's middle.

He walked back toward Susannah, inspecting the staff for cracks and splinters, finding none.

"Here's your robe," she said holding it out. "I washed it for you. And here's some cheese and fresh bread I baked this morning. You can eat it for your lunch when you come to a quiet stream. If you go that way — " She motioned her head toward the far end of the clearing. " — you'll reach the interstate directly."

"That's good," the pilgrim said. "I'm grateful to you for nursing me and taking care of me." He

slipped into the robe and once more felt like a pilgrim.

"That was nothing," she said. "You rescued me from the deserters. You may even have saved my life."

"That wasn't what you said when we were tied up."

"You did that after we were tied up," she said. "I don't approve of killing. None of our family ever approved of killing. I had a brother who became a pilgrim."

"You never heard from him?"

She shook her head. "Either he found truth or death found him. I like to think he found truth."

"If he had, wouldn't he have come back to tell you?"

"No pilgrim ever returns."

The pilgrim was anxious to be away, but somehow he felt that he hadn't acted sufficiently grateful or sufficiently concerned about her welfare. "What will you do now?"

She sighed. "I thought you'd never ask." She reached behind the door to bring out a gray robe with a cowl. "I've decided to be a pilgrim, too. I'm going with you."

"That's impossible."

"Nothing is impossible in this wonderful world."

"Oh, I've heard of woman pilgrims, but never a man and woman together."

"I could cook and wash for us both, and you could find food, and we would have more time for seeking truth. We would find it that much sooner."

He shook his head. "Pilgrims travel alone. And even if they didn't, I travel alone. And even if I didn't, I wouldn't want to be responsible for you."

"I need nobody's help," she said. "I'm responsible for myself."

"Stay here" the pilgrim said. "Or go to the witch-doctor and ask him what you should do."

"He said I could be a pilgrim. He said I should go with you."

"Go ahead then. Be a pilgrim! But be one somewhere else!" The pilgrim turned and walked briskly toward the far end of the clearing and strode into the forest.

He had not walked far when he came to the highway again. He thought of it as a friend he had not seen for a long time. He began to walk along it heading east breathing the winy air and enjoying the morning sun. But after a few minutes he had an uneasy feeling in his shoulder blades and looked back. Following him was another gray-robed figure.

He waited for Susannah to approach. "I thought I told you not to follow me" he said.

"No you didn't. What you said was. 'Be a pilgrim somewhere

else.' And that's where I am — somewhere else."

"Then I'm telling you now. Don't follow me."

"A pilgrim must go where his conscience leads him. My conscience tells me to follow this road for now."

The pilgrim turned and walked briskly away. He kept up a good pace for as long as he could and then stopped to pant. He glanced back. The girl was only a few paces behind, and she was not even breathing hard.

The pilgrim turned and walked on at a more normal pace. A little past noon by the sun, he came to a stream and stopped to drink from his cupped hand, took the bread and cheese out of an inside pocket of his robe, unwrapped it, and began to eat. He ignored the girl who, ten feet away, was going through the same ritual. When he finished he brushed away the crumbs, drank again, stood up, and walked on. The girl took up her place again, ten paces behind him.

AlI afternoon the pilgrim had the feeling that the girl's gaze was burning itself into his shoulder blades. He had the self-conscious urge to shift his back, and only the strongest of will power kept it still. That was painful.

In the early afternoon they

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came to a village — no more than a dozen buildings clustered on the near side of the road. Beyond were level fields, turned now in the spring for the planting of corn and vegetables. In some of the fields the winter wheat was up, a shimmering green across the land. In a distant field a truck was spreading witch powder to enrich the soil or to kill weeds or pests, and in another a truck was pulling a cultivator.

There was a scattering of people in the village, dressed in working clothes still stained from the fields or the household chores. They were talking to each other or bartering idly for goods. No coins changed hands. In all such villages, the pilgrim had never seen any coins. He had asked why this was so — and he had been told; everyone answers the questions of a pilgrim for in what they say he may find truth. That what they did not have, the Emperor could not take away. Besides, bartering was their pleasure.

Now they called to the girl.

"Susannah, you are a pilgrim now."

"I heard about your father, Susannah. Such a pity."

"Stop and stay a spell, Susannah. We'd be proud to have you."

And to the pilgrim, they said, "Welcome, pilgrim. Stop with us. Share our evening meal."

Then the pilgrim turned the

corner of a building and saw beside it a horse-drawn cart. The cart was filled with cabbages and beets and apples, carrots and sacks of grain and potatoes, and a pig. Beside the cart stood a sweating sergeant and behind him seven soldiers, each with his arms filled with produce.

"But we don't want your food," the sergeant was protesting to a villager who kept trying to thrust upon him a clucking chicken. "We want gold, coins, whatever you have. We don't have room for all this food. We would have to walk, and my soldiers must be ready to fight at all times."

"Sir," said the villager, his white hair shining in the sunlight, "we have no gold. The last of the Emperor's soldiers through here but one took all our remaining ornaments, although many of them were only brass, and now we have only food. But you are welcome to that and more. Please take this chicken with our best wishes. Take her to the Emperor. She will make a good meal for him with dumplings."

The sweating sergeant caught sight of the pilgrim. "Pilgrim, maybe you can make him understand. Tell this poor savage that we can't take the food."

"What brings you here, sergeant?" asked the pilgrim.

"Chasing four deserters," the

sergeant said. "But we were told to collect taxes on our way, as usual. Have you seen them? The deserters?"

"Yes. I killed three of them."

"You killed three of them?" The chicken dropped out of the sergeant's hands. It ran off to join its flock, gabbing about its reprieve.

"There was a big one, a rough one, a sly one, and a quiet one. I killed the first three. The quiet one got away."

Why did you kill them?"

"They attacked me."

"You're a mighty lethal pilgrim. You'll have to come with us. Men, get that stuff out of the cart. We're going to take this one in."

"It's unlawful to interfere with a pilgrim," the pilgrim said.

"Not when he's committed murder, and it's murder until those men were officially tried and convicted."

"Which you and your squad would do when you found them."

"But we didn't find them, did we?" said the sergeant. "Besides, they'll never believe us at headquarters if we come back and tell them some pilgrim killed Sam and Jones and Upshaw. Not unless we produce the pilgrim who said so."

"I like Sam," said one of the soldiers.

A small group of villagers had

GALAXY

gathered around them. Susannah pushed her way through them. "you should take me, too. I'm a pilgrim."

"Did you kill anybody?" the sergeant asked wearily.

"No, but they — attacked me, and that's when the pilgrim — I'm a witness — "

"It doesn't matter," the sergeant said. "We haven't got room for more than one prisoner."

"But I'm with him," Susannah said.

The sergeant looked at the pilgrim. He shook his head.

Susannah clung to the sergeant's arm. "You don't understand. He saved my life and now he's responsible for me."

"That's a vicious philosophy," the pilgrim said.

The sergeant flung her to the ground. "Get in," he said to his men. They caught the pilgrim by his arms and helped him into the cart and found places for all on benches along each side. The sergeant got into the seat in front and urged the horse into motion, leaving behind them a heap of produce and a squealing pig. The cart turned right and headed east.

After they had traveled a mile or so down the road, the pilgrim looked back. The village had disappeared but a small gray figure was trudging after them. In another half-hour the figure had disappeared.

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By mid-morning of the following day the hard wooden benches had become like flint beneath the pilgrim, and for that reason alone he wished he had made an effort to escape during the night, even though he had been shackled to a snoring soldier on either side as they slept.

What kept the soldiers in condition to fight?

They had been traveling on the high plains. Now they began to pass through a series of low hills. On one of them the pilgrim glimpsed a lone horseman silhouetted against the sky. When he looked again, there were a dozen there. He pointed them out to the sergeant.

"Luddites," the sergeant said. "They won't attack. They fear the Emperor's wrath, and they know his guns. They'll wait for some lone traveler or some poorly armed group. Naked cowards!"

They passed on, the horse wearily pulling the heavy cart as if it knew its fate and was resigned to it. Over hills and between hills they went until suddenly, as they were between two high stone hills, a metal fence rose up out of the ground in front of them to a height of ten feet and then twenty feet.

The horse braced his feet to stop, but the weight of the cart



kept pushing him forward until the sergeant remembered to help with the brake.

"Back!" he shouted. "Everybody out and get turned around." But by the time the cart was swung around, another metal barrier had closed the way they had entered.

"Everybody get their guns," the sergeant shouted. "At the ready!"

"If you reach for your guns," said a clear voice from above, "I will have to blow you out of there."

Everyone looked up. Seated in a chair supported over the roadway by a metal boom was a man in a white jacket or robe. It reminded the pilgrim of the white jacket worn by the witch-doctors, but it was fuller and longer.

In front of the man was a board on which his hands rested. He wore on his face some glass objects which magnified his eyes until he looked like an owl. On his head was a white cap which completely covered his hair.

"On the hills beside you, you will notice are the mouths of instruments of destruction," the man said. "You will believe me if I tell you that I have but to press a button and those instruments of destruction will belch fire and steel into this small valley until there is nothing left of it. If, by chance, one of you might

make it to the barrier, you will find that something frightening and fatal will happen. Like this!"

He tossed his hand toward the barrier the cart faced. A length of something metallic flew through the air and struck the fence. It flared brightly, melted, and fell in separate pieces to the ground.

"You are frightened by this new force, right?" said the man in the chair above them.

"A Neo-Scientist!" the sergeant said.

"You are correct. And one day my colleagues and I will be greater than the scientists of old, who called this energy in the barriers 'electra-city.' Now, throw your weapons as far from you as you can."

The pellet guns flew in all directions.

"Now the knives."

A few knives followed.

"One by one you will climb the ladder which will descend to you." The Neo-Scientist's hand pressed against the board in front of him, and a ladder uncoiled over the edge of the hill. The sergeant went up first. At the top he hesitated as if he were deciding whether to take his chances in the valley behind him, took a deep breath, and went on. His soldiers followed him.

The Neo-Scientist turned to the

pilgrim. "It went very well, didn't it? Everything worked perfectly. It was the first time, you know, so I couldn't be sure. But it did go well. Didn't it?"

"Well, yes," said the pilgrim.

"Come up the ladder, then. You are different from the others. They are workers. That is their function. You are an educated man, a seeker after truth. That is your function. You could be a Neo-Scientist, if you wished. You are my guest. If you decide to join me and explore the unknown, we will rejoice. If you wish to go on and find the truth in your way we will be sad for ourselves but happy for you."

The Neo-Scientist pressed his board again, and the boom swung back behind the hilltop as the pilgrim climbed the ladder. When he reached the top, the Neo-Scientist was there to grasp his hand.

The pilgrim stood up, stopped, and stared. Below him was a small city built on the edge of a bright lake. Smoke came curling from chimneys, people rode carts through the streets, and the carts had no horses pulling them, a big structure built of wood was drilling something into the earth, crews of men were building roads. It was a lovely picture of civilization and industry, and the pilgrim blinked. He had thought that nothing like this existed on earth any more.

"This," the Neo-Scientist said, "is New Pittsburgh."

"Pittsburgh," the pilgrim said, is a place in the Allegheny Republic ruled by the Hereditary Governor of New York."

"Today it is a large village surrounded by ruins," the Neo-Scientist said. "This is the New Pittsburgh, which one day will be bigger and more prosperous than the old Pittsburgh."

And the pilgrim believed him until he looked down and saw the sergeant and the soldiers being fitted by white-coated men with metal collars fastened one to another by metal chains.

"My own invention," said the Neo-Scientist. "At any moment, those collars can be charged with a variable amount of electra-city. A small amount and the collars only tingle: a warning. A larger amount and the collars shock: punishment. At the top limit they can burn and kill: example. We have very obedient workers."

"I believe you," the pilgrim said. "Do you have many workers?"

"Ten for every Neo-Scientist. In New Pittsburgh everyone has a job, a function. The Neo-Scientist's job is to think, to explore, to invent, to make life easier and progress possible. The worker's job is to provide the Neo-Scientist with the time to do things. Wom-

an's job is to produce more Neo-Scientists and workers. If everybody does his job, everybody is happy."

"Can slavery work?"

"It is a matter of function," the Neo-Scientist said. "In nature everything has a function. The grass grows, the rabbit eats the grass, and the wolf eats the rabbit. The ants in the anthill, each has his job, and when all do their jobs the anthill thrives, and when the anthill thrives all the ants in it are happy. It is when man ignores function that he becomes unhappy."

"Besides, I am working on a brain operation which will allow me to implant an electrode in the happiness center. When a workman does his job he will be allowed to stimulate himself for an appropriate length of time."

"And what will happen when the Emperor finds out about New Pittsburgh?"

"Do you think his soldiers could stand up to my instruments of destruction — the electra-city, the big guns? Watch." He bent over the chair in which he had been sitting and turned a knob. "Look toward the other hill." He pushed a button. The black object exploded and produced a gout of red flame and black smoke. Thunder enveloped them.

Something whistled into the distance. Something exploded

far above the distant hills.

"And do you think he could stand up to my workers, armed with superior weapons and urged on by the stimulation of their collars."

"Perhaps not," the pilgrim said. "But he would try. And I know he would give much to gain control of your weapons and your method of worker control."

"Ah, but what would he do with them?" the Neo-Scientist asked. "He would only do more of what he does now: control more land, rule more people. What will that prove?"

"But where does all of your work lead?"

"To man's destiny: the discovery of all truth."

"Is that the witch-doctor's truth?"

"They have one truth. We have many, as many as there once were people on this earth. Do you know how many people once lived on this world of ours?"

The pilgrim shook his head.

"Four billion people lived on this earth because of the machine. The entire world was like New Pittsburgh, filled with machines that did all the labor. Then men had time to think and solve the mysteries of the universe. And they solved many of them. We find bits and pieces of their solutions that survived the time of

flames when the lowbrows rebelled and ran the eggheads, and the time of starvation and time of troubles that followed when almost four billion men and women and children died of starvation and privation and violence. The old scientists thought they could just let people run loose, doing what they wished. See what happened! The machine was broken, and we have this backward world which can support no more than 100 million people or so.

"But we can profit by the example of the past. We search the world for the science of the past and go on from what they learned to discover the truth of everything."

The Neo-Scientist clearly was serious. "That is a noble ambition."

"It is a noble race."

The Neo-Scientist motioned the pilgrim to get into a small, open car with four seats in it. It rested on rails near the top of the hill. When they were both seated, the car began to move smoothly toward New Pittsburgh below.

The sergeant glanced at them as they departed. The pilgrim thought his eyes were haunted.

"How do you determine who are workers and who are Neo-Scientists?" the pilgrim asked.

"Everyone gets the same education until they are eleven. At

eleven they take an aptitude examination. The ones that pass go on to a Neo-Scientific education, as high as they can go. A few drop out along the way and become technicians. The rest are fitted with collars and put to work."

"That must be a moment of great terror."

"Not at all. What they dread more than labor is further education. Using their arms and backs comes more naturally to them than using their heads. Function!"

By the time the car on rails had reached the outskirts of New Pittsburgh, the town did not look so attractive. The smoke from the chimneys hung in the air, making breathing difficult, settling on the houses, dirtying roofs and clothing, peeling paint off the walls. The horseless carts were emitting choking fumes, as well. The roads were rutted and full of holes. Even the bright lake had a gray scum along its shore. It extended several hundred yards into the water.

And the people who were working did not look up as they passed.

As they rolled through the town, the pilgrim's impression of despair grew. At the end of the rails was a building faced with massive columns and twined with ivy. Rising from that base was a tall, white, windowless tower.

"Come," said the Neo-Scientist, descending from the vehicle.

They went through broad doors and into a large, marbled lobby. Clerks rushed up to the Neo-Scientist, waving messages at him. Neo-Scientists came toward him in their smocks, asking questions. He waved them all away.

"We have a guest," he said, "this earnest pilgrim who, like us, is seeking truth. Speak with him, answer his questions, share your confidences and your thoughts with him as you would with me, and perhaps he will join us."

Then the Neo-Scientist led the pilgrim to the far wall in which there were many doors. The Neo-Scientist pressed a button. One of the doors opened. They entered a little room. When the door closed, the room began to move upward. The pilgrim had a feeling of greater weight. He counted twenty doors before the room stopped, the door in front of them opened, and they emerged into a spacious hall.

The Neo-Scientist led him to one end of the hall, opened a door and showed the pilgrim into a comfortably fitted sitting room with an adjoining bedroom and bath which disposed automatically of waste fluids and other materials.

There were a few books in the sitting room dating back to before the time of burning, and

there was a mechanism which he could use to call for food or companionship.

"My rooms are at the other end of the hall," the Neo-Scientist said.

It was a more astonishing building than the Emperor's palace in Denver and more luxuriously appointed.

"Why do you build so high where there is so much land?" the pilgrim asked.

"You ask good questions. That is a most promising sign in a young man. There are many reasons for building a tall building like this: first, it concentrates control and information processes in a small space; second, it impresses the people with the permanence of their leaders; third, it pleases the populace like the pyramids of ancient Egypt or the skyscrapers of ancient New York; fourth, it has a virile symbolism; fifth, it inspires the occupants to strive harder for understanding; and sixth, it places the leaders far from the scene of possible violence. There, I have been frank with you as I always hope to be, and as I hope you will be frank with me."

"I hope to be."

"Now I have much work to do. If you need anything, just call into that instrument. And remember: function!" And he closed the door.

Clearly, this was one possible answer to the riddle proposed by Susannah's witch-doctor. This was a place where there was more of everything. It took some getting used to. He supposed that a lot of people could not live there; they would not like the tall building, and they would hate or not be able to tolerate the machines. So the Neo-Scientists adjusted to it, and everyone else was ruled firmly.

But somehow the pilgrim did not think the witch-doctor was referring to New Pittsburgh.

And he went over and put his hand on the door, and the door would not open.

It was locked. The pilgrim felt a moment of panic until he remembered the mechanism on which he could call for food, and when he had eaten he called for companionship. When the young Neo-Scientist came he strolled the streets of New Pittsburgh with him, talking about the town and how it was to live there and science and the new life that was building.

The pilgrim spent seven days in New Pittsburgh, talking, living a carefree, comfortable, intellectual life, and in spite of the obvious degradation of the many he could not help being fascinated by the equally obvious liberation of the thinking man to do that which makes man most human.

## WITCH HUNT

Then he would watch the workers in their collars, and the mercenaries who acted as foremen over them, twisting the knobs on their control sticks, and standing guard at the outskirts of town.

And the pilgrim could not help noticing that whenever he was alone in his room the door was locked and whenever he was outside the room someone was with him. After a little he began to wonder if he too did not wear a collar like the workers, only he had fashioned it and put it on himself.

On the evening of the seventh day, after dusk as he was walking with one of the young Neo-Scientists, he talked with him about the mysteries of the earth and about the mysteries of the sea, about the mysteries of the air and the mysteries of the stars. He began to grow very excited about the human adventure.

In the distance came a chorus of loud yells, and the pilgrim saw a group of flickering lights. He heard a thunder of hooves getting closer, and he wondered what new miracle New Pittsburgh was producing.

## V

The hooves became separate horses, the flickering lights became individual torches, and the yells parceled themselves out



among the individual throats of near-naked Luddites who were storming down the main street of New Pittsburgh. They tossed their torches into houses, and the houses magically turned into flames, and the flames painted the bodies of the Luddites. The Luddites leaned far over their horses to club down pedestrians in the street. They took particular delight in smiting a mercenary or a Neo-Scientist. And they swept up a few women to ride behind them.

Two of them saved their torches for the buildings adjoining the Neo-Scientist tower, and then it seemed as if the entire city had turned to fire and men and women were running frantically back and forth in front of the flames, not knowing what to do.

Everything happened so quickly that the pilgrim did not have time to evaluate his actions or reactions, and before he could do so a horse galloped so close by that its sweat sprayed on him, a strong arm closed around him under his arms, and suddenly he was sitting on the back of a wildly galloping horse.

He thought of struggling, but he looked back and saw that New Pittsburgh was doomed. Everywhere it was burning, and even the tower of Neo-Science was in danger of being engulfed. Black figures were fleeing.

The last vision of the city the pilgrim took with him was of the sergeant and his squad of soldiers. The sergeant had found a saw, and he was sawing away at the chain that linked him to the next man.

The horses ran long after they had swept into the outer darkness and the ruddy light had faded into night behind them. Finally they stopped and the pilgrim was allowed to slide, leg and bottom weary, to the ground. The women were told to build a fire. They looked until they found some twigs and many cow chips. Then they were given grain and preserved meat out of leather pouches, and the Luddites produced a pot in which to cook them.

The pilgrim had been sitting back in the shadows, but one Luddite noticed him and urged him to join the other women. He urged him with a brisk blow to the back of the head. The pilgrim's cowl fell back.

"I'm not a woman," the pilgrim said.

"By damn, you're not," the Luddite exclaimed. "But you looked like a woman in that robe!" And he reached for a knife in his belt.

The pilgrim hit him just below his ribcase, and the Luddite grunted and doubled up. The other Luddites laughed until they

rolled on the ground by the fire. "George and his woman!" they shouted. "George's woman has a kick like a mule."

The Luddite began to straighten up. He was still trying to get his knife out of his belt. The pilgrim hit him again in the same spot. The Luddite sat down heavily, and his fellow Luddites broke into new screams of laughter.

Finally the laughter began to subside. The stricken Luddite slowly began to get to his feet, holding his stomach and backing away. "Perhaps we can reach an agreement," he said. "I do not kill you, and you do not hit me."

"That's fair," the pilgrim said.

One of the other Luddites called out, "George, don't you know the difference between a woman and a pilgrim?"

"A pilgrim? Is that what this is? I've heard of them but I never saw one before."

"One of them was in camp just a few days ago."

"I was out hunting with a bunch of the boys."

Looking around at the little group — there seemed to be no more than twenty-five Luddites, none injured — the pilgrim was astonished that so few had done so much damage.

After their simple meal of porridge enriched with bits of meat, they sat around the campfire talking in loud voices about the



raid on New Pittsburgh, the destruction they had wrought, and the mercenaries and Neo-Scientists they had killed. There was no remorse.

When they had completed their boastful recounting of the evening's action, one of them stood up and began to chant a song of ancient bravery, of blows struck and victories won, of Luddites fallen in battle taking their enemies with them, of machines broken and of one vast machine that was stilled forever before it made slaves of all mankind.

"Machines must die!" he chanted. "Science must die! All who fashion and create must die! Man must live! Nature must live! And the right way to live will live!"

Later, as the talking died away, the pilgrim turned to the Luddite beside him. The Luddite smelled of smoke and grease and sweat, but the pilgrim was beginning to get accustomed to it. He supposed he was a bit gamy, himself. "Is that why you burned New Pittsburgh?"

"Was that the name of the place?" the Luddite said. It was George, his captor, who now had become his friend. "Well, it was for kicks, mostly," he said. "That is the way most of us look at it. A few, they really got this thing about the machine. They really

go nuts about it. Not that we all don't feel kind of that way. Every moral person does."

"I suppose so," the pilgrim said.

"You've got to be for it or against it. We take sacred vows to destroy any machine we find and anybody who builds machines. You aren't a Neo-Scientist, are you? You were in that town."

"I had been captured, just as you captured me. How do you feel about the witch-doctors?"

"They're okay, I guess."

"Don't they use machines?"

"Naw," the Luddite said, "They got powers just like our spiritualists. You know — they can make the wind blow, heal the sick, turn the land sweet for growing things, bring the game, that sort of thing. It's all in knowing the right way of doing things."

"I see," the pilgrim said.

"Anyway, we don't see many witch-doctors."

Wrapped in blankets, lying on the sweet prairie grass that prickled a little through the blanket, smelling the fresh prairie air and the last smoke from the campfire, seeing the stars wheel past, they fell asleep.

In the next few days, the pilgrim became a part of Luddite life on the move. Given a spare horse, he soon became accustomed to riding it bareback,

his robe floating out behind him like gray wings.

Where it was forested, they hunted deer, waiting by streams until the spooky deer came stepping lightly to the trickling water for a drink. They fished for trout and bass and pike and, best of all for eating cooked over the campfire, catfish. And they chased a giant herd of wild cattle, felling them with arrows and lances as they rode along beside the running, plunging beasts. Afterwards, tired and dusty, they enjoyed a feast of steak and roast and liver and tongue cooked over giant fires and eaten until satiation; they slept and woke to eat again.

It was a good, clean, manly life. The pilgrim felt himself growing lean and strong. His face became bronzed like those of his captors; soon the only thing that distinguished him from them was the robe he wore and would not discard. This was the way a man was meant to live, he thought.

In the evenings, after the meals were completed and the women were eating, the Luddites would talk by the fire about their exploits or sometimes about life and God and the afterlife. Sometimes the minstrel would sing of old glories or glories yet to come, and the blood would dance within each Luddite until he was compelled to get up and stomp

around the dying fire as the minstrel chanted, making guttural sounds and whoops of other noises.

And the minstrel had made another song, a new song, about the burning of New Pittsburgh, and everyone sat quietly and listened.

Sometimes the pilgrim would show them tricks that he had learned — the boxing with the fists, the shrewd blows with the sides of the hands or the fingertips or the feet, the strange magic of the quarterstaff.

And then there would be long, quiet nights under the stars, wrapped in a blanket, for thinking or sleeping.

Perhaps this was the life the witch-doctor had meant in his riddle. It was a most pleasant life. There was plenty of what everybody wanted. But anybody could learn to enjoy it; except that there could not be too many or there would not be enough game or fish for everybody.

The lot of the captured Neoscientist women was not so ideal. But they were a subdued group good for little more than doing what the Luddites told them to do, like gathering wood for fire, cooking meals, going with the Luddite who selected them to his blanket for the night. They did not complain much, however, although they got dirtier and

greasier and more bedraggled each day.

There was little spirit in them, the pilgrim thought.

And finally, when the hunt was over the riders came one evening to an encampment where wicker huts were built beside a stream. The riders came thundering down from the hill and into the camp, shouting and screaming. Out of the wicker huts came the women and children and old men and a few young men as well. They surrounded the newcomers with outbursts of joy and questions about the hunt.

"Later," George said. "Later at the campfire we will tell it all, the whole glorious tale. The minstrel has made a new song about our great feats of strength and guile and courage. It is a song that will live among the Luddites as long as there are minstrels with a voice to sing."

The pilgrim looked around for the other pilgrim and thought he saw a gray robe in the distance. While he was looking he thought he saw another familiar face, but he could not remember where he had seen it before.

So it was that the story was told at the campfire, after the feast on the meat the group had brought back from their hunting, and the singing and dancing went on long after the sun had set.

But not for the pilgrim. In the crowd that spilled from the huts he had reached where the other pilgrim went, and now he sought pilgrim out.

He pushed back a hood and said, "Susannah!"

"It's me," she said, "wearily wiping one greasy hand across her forehead.

"What are you doing here?"

"Taking meat to the men."

"I mean in this camp."

"Seeking truth, and it is not here."

"You look thinner. Have you been sick?"

"Only of these savages. You'd look thinner, too, if the old women and the old men and the young men, too, beat you out of bed in the morning and sent you off to the fields to plant corn and potatoes with a crooked stick, shoo the birds away from the growing plants, pull weeds by hand, cook meals, wash clothes on a rock, and then be hauled off to a filthy blanket by one of these greasy pigs. But you seem to be doing well for yourself."

"I must admit I have found it a good life," the pilgrim said.

"It's a great life for the men. For the women's drudging from dawn to the middle of the night."

One of the Luddite men danced by. "You want that woman? You can have her. No good for work,

no good for sleeping with. Wear yourself out beating her and still she fights like a wild animal. You take her. She wears a robe like yours."

"There," the pilgrim said. "Now you are mine, and I will set you free."

"A great lot of good that will do me," Susannah said. "If I try to get out of here, someone else will grab me, and if I don't I'll have to work like the others or the Luddites will be turning on you, and I'll still have to work like the others."

"I suppose they couldn't have a double standard. Well, come with me. We'll find a spot to roll out a blanket and at least you can get a good night's sleep."

"I'd like to take a bath," she said.

"Don't they let you bathe?"

"When would I find time?"

"We'll both bathe. I haven't found time either. Where is a good spot?"

"Below the camp the stream has been damned by beavers. There's a pool. We wash the clothes there."

In a few moments they were splashing in the pool together in the dark, rubbing themselves with sand and ducking their heads under to get the dirt and lice out of their hair.

When Susannah got out of the

pond, the pilgrim was shocked to see by the distant firelight how thin she was and the bruises on her back and legs. He wrapped her in her robe and put on his own robe and found a level spot to spread his blanket. They lay down together on it, and he put his arm around her for warmth.

"You have had it tough."

For the first time since he had met her she was silent. She put her head against his chest. Her body quivered. After a few moments the pilgrim realized that she was crying. He had had many experiences in this world, but he had seldom been alone with a crying woman and never with a woman who sobbed silently. He didn't know what to do. He patted her on the shoulder and said, "There, there." And when that seemed too paternal, he smoothed her short-cropped hair, noticing for the first time that she had cut it off. "It must have been terrible!" he said.

She cried harder, but eventually she quieted. The shoulder of his robe was soaked with her tears, but he let her remain where she was. Presently her growing warmth and her proximity began to work upon the pilgrim a familiar magic.

"Oh, hell," she said. "You're like all those other savages."

The pilgrim protested. "I have not done anything."

"It's obvious what you're thinking. When you asked me to share your blanket, I thought you wanted me to get a good night's sleep."

"I did. Believe me. But you're so warm. I can't control my reactions, but I can control my actions. You have nothing to fear from me. An unwilling woman is not my idea of —"

"Oh, shut up!" she said, and she kissed him, and one thing led to another.

In the morning as the sun dazzled his eyes, the pilgrim awoke to find himself alone in the blanket. His clothing was gone, even his robe, and he had only the blanket to cover his nakedness. He felt around in the grass and found a wide, cotton belt. He strapped it around his middle and, wrapping himself in the blanket, went to the stream.

He found Susannah taking a blue pill out of a bag hung around her neck and popping it into her mouth. When she noticed him, she said, "I took a handful at the witch-doctor's while I was about it. I guess you think that's a terrible thing for a girl to do."

"Well, I guess not," the pilgrim said. "I mean, it's thinking ahead or — Anyway, it's none of my business." He stooped to drink.

Susannah said, "I'd advise you

to drink above the camp. The Luddites throw all their garbage and other wastes into the stream.

She was beating his clothing between two stones. Her own clothes, still wet, were on her. "I thought you hated this kind of drudgery."

"It's not drudgery when you are doing it for somebody you like. Besides, if I wasn't washing clothes somebody would be beating me to work at something for them."

Turning his back, he slipped into his wet clothing and robe.

"It's a little late for modesty, isn't it?" she asked.

The pilgrim did not answer. He walked off in dignity, shivering, toward the camp. When he had drunk at the stream above the camp and picked up a couple of stray bones with meat on them to gnaw upon, he returned to the spot where he had left Susannah. But on the way he met an old woman who was whipping Susannah's legs with a bundle of switches and pointing off toward the fields.

"Stop that!" said the pilgrim. "This is my woman."

"Shameless man!" said the old woman. "Letting woman idle. Idle woman is evil woman. So say the wise men."

"Don't interfere," Susannah said.

He trotted along beside her.

"What do you mean, don't interfere?"

"You must work within the system." Susannah scampered to keep ahead of the switches. "You can't fight it. Find out how it works, and then you can make it work for you. I'm going! I'm going!"

The pilgrim searched out the Luddite named George. "Say, George," he said, "I want the pilgrim woman."

"Fine," George said. "You take her tonight."

"You don't understand. I want her every night — and every day, too."

"That's not the way it works here," George said patiently. "Every woman is any man's woman. No favorites. No jealousy. No quarrels. Share and share alike. You have her one night; I can have her another night. Good system."

"But," the pilgrim said, "I — want her — for myself!"

"Well, you can't have her and that's that!"

A group of young Luddite men had gathered around the discussion, drawn by the straining voices. "What's the matter here, George?" asked the one who looked familiar to the pilgrim.

"This character wants a woman all his own," George said.

"How many do I have to fight?"

WITCH HUNT

"Are you some kind of spy?" George said. "We take you in, we treat you nice, and now you want to change the way we do things. Just like that! The old ways ain't good enough for you. Are you a Neo-Scientist after all?"

"All I want is the girl," the pilgrim said, looking around. But he wasn't quick enough. The club hit him on the back of the head before he quite got the word 'girl' out of his mouth. But he saw the man who hit him, and at that moment he recognized who it was. It was the quiet deserter from Susannah's clearing.

He woke up with a frightful headache and someone tugging at his hands behind his back. They were tied together, but as he realized that fact his hands fell apart, and he sat up.

A hand came over his mouth. He raised his hands. The hand on his mouth was a small, shapely hand. "It's me, Susannah," a voice whispered in his ear. "We have got to try to escape. Tonight. They're going to kill you. Slowly. With ceremony. That's their way. Come on."

They slipped through a slit in the back of the hut and crawled until they thought they were out of earshot and then got up and began to run. They ran for a long time, stumbling occasionally in the night, and threw themselves

down to rest and got up to run some more.

During the second rest Susanah said, "We'd better split up, I think we'd have a better chance of getting away."

"No!" the pilgrim said. "We both make it or neither of us makes it."

"That's an idiot's choice," Susanah said scornfully. "I'm not thinking of you. I'm thinking of me."

The pilgrim could not think of an answer.

They separated for the next to the last time.

## VI

As the cart jostled through the rutted streets of Lawrence with the ball of orange witch fire perched on the right front post and the soldiers eyeing it furtively, the pilgrim thought over the events of the past six months since he had begun his pilgrimage from a village not far from Denver.

He had seen the way people lived. He had seen many kinds of people and many kinds of peoples. He had known the life of a wanderer, and along his way he had met other unhappy, dispossessed persons. All the others, in their way, were happy or at least had something to recommend the way they lived.

The Neo-Scientists enslaved others but dreamed about the stars and the mysteries of life. The Luddites had a wild and wonderful existence free of most ordinary cares, but their life was only for men and it was always the same, one day to another. Maybe that was the way life was meant to be, the pilgrim thought.

The Empire was a joke. It did not seem like a joke when one was part of the court or near the imperial seat where the Emperor's word was absolute. But beyond a radius of twenty-five to fifty miles people lived pretty much as they chose.

Then there were the villagers, most of them farmers. There probably were more of them than of any other kind. They raised their crops and their livestock, they went to the schools provided by the witch-doctors, occasionally a bright youngster would go off on a pilgrimage and never come back, and they were under the protection of the powerful but uncommitted witch-doctors.

The witch-doctors were the key to the situation, as the pilgrim analyzed it. They held power but they did not use it. They did not interfere. They helped when they were asked. They taught. They gave advice. They provided what was good for the body, good for the soil, good for the livestock, good for the mind.

Maybe. But they did not interfere. They let people kill each other if they wanted to, love each other if that was the way their tastes inclined.

The pilgrim had never known them to lie, personally or through their teaching devices which gave answers and asked questions through some strange magic, just like a person. Occasionally both said things that were enigmatic or incomprehensible. Sometimes, later, some of these statements might make sense when he had learned something else.

The question: where did the witch-doctors get their powers? Did they, in reality, have some magic formula which brought natural forces under their command, some intercessionary power with the spirit world, if there was a spirit world?

Or, the pilgrim thought, were the witch-doctors like the Neo-Scientists? Were their powers completely natural, though beyond the scope of ordinary man, rather than super natural? Did they manufacture and control machines?

If this was so, and the pilgrim was beginning to think that it was, why were witch-doctors not set upon and destroyed by the Luddites and every other right-thinking person who remembered the time of starvation

and the time of troubles? Both had been caused by the machine and the century during which it ruled the world. Why were they not killed like the occasional, aberrant Neo-Scientists who arose and had their brief day and were destroyed?

One reason: they did not glory in their machines like the Neo-Scientists; they built no monuments. Another reason: they did not explain; they called it magic.

Magic is acceptable; science is detestable.

There was one catch: what did the witch-doctors gain by it? The pilgrim's excitement faded. There must be a profit; there must be a motive. Were the witch-doctors satisfied merely to do good so that others might live better lives? Did they get their return from the gratitude and admiration of the people, from their sacred positions, from the power to teach and preach? The pilgrim shook his head. Such saintliness was beyond belief. None of those motives were enough, not for him and not for any man, much less the thousands scattered in their villas across this empire and perhaps, who knows, across other lands as well, even to the mysterious Russias and the Chinas across the oceans that no one had heard from since the time of troubles.

And then the pilgrim's elation



arose again. Perhaps the answer to the question of motivation was a second truth, or a complementary part of the first truth, and when one had learned this, one had learned the truth that one became a pilgrim to find.

Because there was, in the tradition of the pilgrim itself, some kind of return. This was, the witch-doctors said, the only way to become a witch-doctor. If you became a pilgrim and learned the truth, you became a witch-doctor.

Therefore — a pilgrim is a witch-doctor's way of making another witch-doctor, just as an egg is a chicken's way of making another chicken. But equally as true, a chicken is an egg's way of making another egg, and isn't therefore a witch-doctor . . .

That was the wrong track. The question: what do witch-doctors do? They serve, said the witch-doctors. But that led back only to the village where the process began again. Do witch-doctors do anything else? Yes. They must. But if so, what — and where?

The pilgrim would have liked to pursue this line of reasoning farther, because he thought it was getting him somewhere, but the cart jerked to a halt.

"Out, pilgrim!" said the sergeant.

The pilgrim remembered another sergeant and wondered

where he was now with his squad. He looked around. The city hall was an old brick and stone building. It must have been old at the time of starvation, the pilgrim thought, but it had survived the time of troubles better than newer structures, and its brick tower still ascended high above its stone front steps.

"Up! Go on up!" the sergeant said, yanking his arm. "The captain's waiting for you."

The pilgrim shrugged and walked up the worn steps and through two curious wrought-iron doors and up another short flight to a large room with tall windows on either side. All the windows but one had been broken many years ago and had been boarded up, but one miraculous window still admitted light. In front of its fading glory sat an officer behind an old desk, his sword laid across it still in its scabbard, scribbling away with a quill pen at a piece of paper.

The pilgrim looked around as they waited for the captain to complete his writing chore, and he noticed for the first time that the ball of witch fire had followed them into the building. It perched on a railing not far from the captain's desk, and the captain noticed it as soon as he looked up.

He would rather not have noticed it, the pilgrim thought. He

would rather have stared overbearingly at the prisoner, but he saw the witch fire first and said, "Get that out of here!"

"How would I do that, captain?" the sergeant asked.

The captain was thin and red-haired and choleric. "Then get yourself out of here!"

"This pilgrim is pretty good with a quarterstaff," the sergeant said. "Beat up a mercenary pretty good with it."

"Well, he doesn't have a quarter staff now, does he?" the captain asked.

"What I meant, captain, was he might be good with other things, his fists, maybe."

"I can take care of anything he has in the way of exotic skills," the captain said. "Get out."

As soon as the sergeant had departed, the captain said, "The quality of non-commissioned officers you get these days is appalling. You'll have to pay a fine for brawling in the streets, you know. That will be two gold pieces."

"Which you will pocket," the pilgrim said. "Forget all that, captain. I'm on a special mission for the Emperor."

"And who might you be," the captain drawled, "to be doing a special mission for the Emperor?"

"My name is Leonard Kelley."

"Head of the Emperor's secret

police," the captain completed for him. "And what is the nature of your mission, pilgrim?"

"That's my business, and the Emperor Bartlett's."

"I suppose you have identification."

"Of course. In my belt." He fumbled beneath his clothing for the belt, undid the buttons on it, and drew out nothing. He fumbled around in the empty pocket, thinking that he had not looked into it for several months, remembering the morning he found the belt beside his blanket. "I've lost it. Someone's stolen it."

"You've lost it," the captain said, resignation in his voice. "Pay the two gold pieces."

"I can give you corroborative information about the court —"

"I've never been to court, pilgrim. It would be amusing to see you trying to impress me, but I don't have the time. Pay the two gold pieces."

"Why would I try to make you believe a lie that could so easily be disproved?"

"People tell me the damndest things, pilgrim. I've given up trying to guess why they do it. Pay the two gold pieces."

"Pilgrims have no money."

"I was afraid so. Why does that absurd sergeant keep bringing you beggars in here? Sergeant!"

The sergeant trotted into the room.

"Give this pretentious pilgrim a caning — five should be enough — no, make it ten. And then throw him out."

For a moment the pilgrim thought of making a fight of it, but he thought again and decided against it. He shrugged his shoulders and went with the sergeant to a dingy cellar. It once had been something more than a cellar. It had had carved wood panels on the walls, but most of the panels had been wrenched away. Now there were cuffs fastened to the wall.

Two of the soldiers slipped his hands into the cuffs and fastened them. The sergeant removed his robe and tore his shirt down his back. He stepped back and chose a sturdy cane from a basket of them. He made it whistle through the air in preparation. Then, counting aloud in a voice like a grunt, he began to apply the cane to the pilgrim's back. Against his will, the pilgrim grunted, too, as the cane landed; then he moaned and before the tenth was applied he howled a little.

The soldiers released him from the cuffs and the sergeant handed him his robe. Gingerly the pilgrim adjusted it over his bleeding shoulders and stepped out into the street.

"Remember," the sergeant said. "No brawling."

The pilgrim thought he would remember.

The streets were dark. Curfew had rung while he had been in the captain's office, and the streets were deserted as well. The pilgrim shivered, and the involuntary movement made his back hurt anew. He had to get away quickly, he knew, but which way and where?

"Pilgrim," someone said. "Kelley!"

The pilgrim started and turned his whole body to face a particularly impenetrable area of darkness.

"It's me, Susannah." The girl came out of the darkness into the patch of light cast from the window above, where a candle flickered and the captain, no doubt, was working on his interminable reports which one day, he hoped, would get him to court.

"You did take the identification," the pilgrim said.

"Yes, and then I had no way to get it back without telling you, and I didn't want to do that. Anyway, I thought a captain in the Emperor's secret police ought to have a taste of the Emperor's justice."

The pilgrim eased his shoulders into a more comfortable position. "I have," he said ruefully.

Susannah made a crooning sound and moved forward.

"Never mind. We've no time. In about fifteen minutes the captain is going to send his troops after me."

"But you've already been punished."

"He is going to reflect that I may be Captain Leonard Kelley after all. And he is going to consider that I will remember him when I get back to those who know me. And he will suspect that I will see he is taken care of in the nicest possible way. Rather than take that chance, he would rather kill me now."

"Follow me," Susannah said, and she led him through the dark streets, between ruins, and up the beginning slope of a hill.

In the distance, as they climbed, were the sounds of a horse stomping and a cart rattling as it moved forward and back and a distant voice shouting imprecations. "He was not a very bright officer," the pilgrim said. "It was more like twenty-five minutes."

"There's a little village on the other side of this hill," Susannah said.

"That's the first place the soldiers would look for us."

"Of course. But right up on top of this hill, where according to legend there once was a university which was burned at the start of Lowbrow Rebellion, is the villa of a witch-doctor."

WITCH HUNT

"And you think he will take us in?"

"Why not?"

"The captain of Emperor Bartlett's secret police?"

"A pilgrim. We all have pasts."

"Not like mine. I've even burned witches."

"The witch-doctors always have known who you are and what you want, right from the first moment you started studying with the witch-doctor near Denver."

"And what did I want?"

"To find out as much as possible about the witch-doctors so the Emperor could use their powers to enlarge his empire."

The pilgrim made a sound of dismay and humor.

"True?" Susannah asked him candidly.

"True enough," he admitted reluctantly.

"And now?"

"I don't know," he said. "I've seen many ways of life, and there is much to be said for each of them."

"Anyway," Susannah said, "we are not going to the villa. He's gone."

"Where then?"

"To the chapel."

"Why?"

"Why else? To pray." And without further conversation she led the pilgrim up the hill to his salvation.

The villa was identical with all the others, low, sprawling, lighted, potent. Behind it was the domed chapel, standing like a silo in the night.

Susannah led him to it, for the pilgrim had a strange reluctance to enter the building. She urged him through the doorway. There was nothing new about it. Both of them had entered similar chapels in other places at other times separately. Susannah pressed a button that closed the door behind them.

"Well, they can't get at us; that's for sure," the pilgrim said. "But we can't get out either, and they're likely to post a guard out there until we get hungry enough to come out."

"I think the truth is here, somewhere, if we can only discover it," Susannah said.

She motioned him up a ladder to the meditation room. They sat in the two padded chairs and meditated.

"A pilgrim is a witch-doctor's way of making another witch-doctor," the pilgrim muttered.

"What did you say?"

The pilgrim repeated it. "Just something I thought of."

"What else did you think of?"

"Why are witch-doctors?"

"Yes," Susannah said. "Go on."

"What do they do besides serve

others? Because they must do something. They do something human. Right?"

"Or witch-doctorish."

"That's the same thing, a kind of special humanness. And where do they do it? Everywhere that we have seen them they live alone. Perhaps somewhere else on this world they are all witch-doctors together, and they do something."

"Something wonderful."

"Or something terrible."

"Never."

"If we have seen all there is to see — there may be stranger ways of living, but we must think that what we have seen on our travels represents what is typical — then the witch-doctors must do what they do somewhere not on this world."

"Yes," Susannah said.

"Yes," the pilgrim said.

"We have found the truth."

"We have found the truth."

"They say," Susannah said, "that when a pilgrim has found the truth he should press the button in the meditation room of a chapel, and if he has truly found it he will ascend to heaven. And if he has not found it he will die."

"That is what they say."

"Shall I press it?"

"Press it!"

Susannah pressed the button in front of her. As she did so, a

jolt rocked them back in their chairs. Metal straps closed around their arms and legs and waists and pulled them tightly into the chairs.

But they were pulled tighter still by some other force. It tugged at all the parts of their body, their cheeks, eyeballs, face, arms, legs, inner organs . . . And it tugged and tugged for an eternity. Suddenly eternity was over, and they floated in their straps, sickeningly free of pressures but oppressed by a new sensation.

Then the force tugged them back once more into the cushioned chairs for another eternity and released them once more and they floated again and they vomited. The vomit floated in globules in the air about them.

"Congratulations," said a voice without a body, a voice which sounded a little like the voice of their witch-doctor, whoever he might be, and a little like the voice of God. "You have found the truth, or by accident you have placed yourself in great jeopardy. The next few minutes and hours will determine whether you will find what you have been seeking or you will be dead."

The metal cuffs released them from their seats, and they, too, floated in the air. It was a bit like the gymnastic exercises he had performed in the witch-doctor's school.

WITCH HUNT

"You now are in orbit around the earth, which means you are out in space where there is no air, nothing to breathe, no food, to eat, and either no heat or too much heat, and you will freeze or burn.

"In the lockers around this room, which now are open, is equipment which you must use if you are to survive. If you have an unconquerable fear of machines or an unreasonable prejudice against them, you are doomed. Your life depends upon the proper use of these machines. You also must depend upon what my voice tells you, for you have only two other referents for this kind of environment: your schooling and your native and conditioned adaptability."

Susannah and the pilgrim were becoming a little better accustomed to the novel sensation of free fall. The globs of rejected food and fluids, however, were a nuisance as they brushed into them and the globs spread over their bodies. Susannah found an open container and lid in one of the lockers and chased the larger globs around the room until she had most of them captured. She discovered that if she kept the container in forward motion the contents would remain at the bottom, but if she forgot they would float out again. The pilgrim found a cloth and swatted at the

remainder until the air was reasonably clear. The container and cloth were pushed into a receptacle marked *wastes*.

When they finished they learned that they could maneuver reasonably well in this new environment.

Meanwhile the voice continued with its instructions and admonitions. "Your capsule — this machine for traveling in space which encloses you — is approaching a space station, a village for living in space, where there is no air, no food, and too much or too little heat. You must not only survive the environment in this capsule, which will get deadlier, you must find a way to survive a passage through the hostile environment outside and make your way, with some novel method of travel, to the space station.

"And once you have accomplished this, your ordeal, your final examination, will be over.

"Everything you need is around you. Think, adapt, use. Remember that nothing is intrinsically evil or intrinsically good. Everything depends upon how it is used."

The pilgrim looked at Susanah; she was looking at him. They both looked around the room at the many lockers yet unopened which might hold the key

to their survival. The pilgrim felt a flare of rebellion at the unfairness of this test, thrust upon them so unexpectedly, upon which depended their continued existence.

They were not yet ready for this alien experience. And then he thought — and his resentment began to fade — how could they be ready for something as alien as this if they had not been born into it?

"You may be feeling that you have gambled your lives without foreknowledge of the game, that had you known the stakes you would not have played. But this is true of all men. No one ever knows the stakes except that at the end, however long delayed, there will be death.

"Our goal is to breed a new man who can adapt to the machine and the environment of machine-aided civilization. Some we can breed here in space, where man and child must learn to depend utterly on the machine to sustain life, for one mistake usually is fatal. Thus the natural law assumes new vitality: the survival of the fittest.

"Many others we recruit from earth, where the store of genetic material — of that which makes men and women have children like themselves — is still far greater than we can muster and still of infinite potential."

Susannah and the pilgrim began to work their way through the contents of the lockers. Enigmatic lessons that he had learned in the witch-doctor's school were returning to the pilgrim with new meaning.

"Here is food," Susannah said. "A kind of paste that you squirt into your mouth like this. And a kind of fluid that you suck through a tube. At least we won't starve, not immediately."

"And here are a couple of funny suits," the pilgrim said.

"They look like they're made of silver."

"But they're flexible, except for the joints and a crazy kind of helmet."

Susannah came over to look at them. "If there's no air outside, then we couldn't breathe. We would die if we didn't take air with us. Maybe this is meant to hold the air around us."

"That's it," the pilgrim said. "And maybe these tubes are meant to contain extra air so that you can take more air than what the suit would contain. Look! There's a place in the back where something like this can be attached." He fiddled with the closed tube and a gush of cold air came out. He sniffed. "Smells all right, but cold."

"I think we ought to put them on right now," said Susannah.

The voice continued to talk to

them. "The breed of man as a whole was incapable of living with machines and with science because it took from them the power of decision over their own lives and deaths. They rebelled. Most of them died, unable to survive without the abundance created by the machine. Some, who had proved their ability to adapt to new conditions, went into space. They wanted to survive, of course, but also they wanted man to survive and his pursuit of knowledge to survive. They wanted him to learn more about himself, about his past, about his future, about his place in the universe.

"And he is doing this — man, not superman. The traits were always there, the potential for creativity and adaptability and adventurousness, just as there was in man the content of the villager, the hunger of the Emperor, the lust of the mercenary, the greed of the shopkeeper, the inquisitiveness of the Neo-Scientist, the simplicity of the Luddite.

"Out of this mix of traits we select intelligence and adaptability and benevolence by making them a matter of survival."

The pilgrim was helping Susannah into her silver suit. Getting into them would have been difficult enough under normal conditions, but in weightlessness



it was practically impossible.

"How do we survive?" the voice continued. "How do we get the wealth to mount our expeditions to the planets of this system? How do we maintain our villas on earth? It comes down to energy, which is a kind of wealth; indeed in the end it is the only real kind of wealth. And in space, energy is free. There is too much of it, so much that it will kill you if you don't respect it. And we are, as well, the sole users of atomic power, the surprising energy of the very small. For materials, we mine the moon and the inhospitable areas of earth and its seas. We are rich.

"But wealth, like anything else, is neither good nor evil. It must be used properly. On earth we use it to help, freely, without interfering in men's free choices. In space we use it to move onward and outward, as man must do to be man, respecting all life and particularly respecting all possible thinking life, although other than man we have found none yet. That is what we live by."

By now Susannah was into her suit, and the pilgrim fastened a tube of air onto her back, turned the valve, and hoped it would work. Then he helped her put on the helmet and fastened it. She motioned frantically at his suit and then at him. He floated and inserted his legs into the suit.

"Within a few minutes deceleration — slowing down — and minor course adjustments will begin," the voice said, "and you must be back in your chairs or you will be rattled around in this capsule like dice in a box. You might be injured. If you have made good use of your time, you will be in the space suits by now. If you are not, there is no time to start and complete the job.

"Five minutes after deceleration, the capsule door will open and the air in the capsule will rush out. If you are not properly protected, you will die within a minute or so. If you are protected, you will see outside the port the space station known as *Truth*. If you make it to that station and into it, you will be one of us."

The pilgrim had struggled his suit closed and was trying to work the helmet into position with his clumsy, gloved hands while Susannah fastened the tube to his back.

"Take your places in the chairs," said the voice. "Now! And good luck to you."

They moved quickly to the chair. Once settled into the chairs by pulling themselves down by the arms, they found their arms and legs again encircled. Almost as soon as that happened, they were tugged deep into

the cushions again and then tugged from one side to another. After a moment the shifting weights vanished, and they were free.

Susannah sprang back to his helmet, checking the catches to see if all were closed, finding one open and closing it; and, not unlike monkeys searching each other's fur for salt, he did the same for her.

In the midst of their inspections, a gust spun them around. The air leaving, the pilgrim thought. He caught Susannah and braced himself against one of the seats until the gusts subsided.

"Are you all right?" he asked.

Inside her helmet her eyes were looking at him. He saw her lips move.

"I can't hear you," he said.

She shook her head. He shrugged.

He motioned her toward the door and then halted beside a locker they had not yet opened. He opened it. Inside was a rope and a pair of small hand machines. He did not know what they were for, but he grabbed them and then preceded Susannah down the ladder.

At the outer door he looked out the opening from which the door was completely gone — and saw the stars. For a moment his senses rebelled, and he felt that he might be sick again. But he recalled his

schooling about the stars and took a deep breath and forced himself to stare back at the staring stars, set in the blackest night, where a man might fall for ever and never, without end, into infinity and beyond. And he turned to Susannah, who was staring past his shoulder, and fastened the rope around both of them with clumsy gloves, and tried to tie a square knot that he hoped would hold.

He gave her one of the hand machines. When she looked at him questioningly he looked blank. Then he eased himself out of the doorway. He floated free, and then Susannah, too, was free, and they floated above the capsule and they saw the earth above them.

**I**t hung there in the black sky, huge, with misty mountains and shrouded blue seas and brown and green patches of earth, all muted into pastels by a veil of air. And suddenly the earth flipped over and was beneath them. The pilgrim gasped and tried to claw for support, and there was none. He forced himself to look away.

He saw the sun, clear and burning, as he had never seen it before, and he looked away quickly lest he go blind.

He saw the space station, a large wheel turning in the black

sky, surrounded by metal bubbles that floated freely around it. So close and yet so hopelessly far away.

Susannah had been inspecting the machine the pilgrim had given her. She closed her gloved hand on it, and it hissed. It emitted a white exhaust. Alarmed, she released her grasp on it, and it shot away before she could grab it again. It receded quickly and soon was lost in the distance.

Susannah tapped the pilgrim's helmet and pointed at the machine in his hand and at the one that had disappeared toward the overhanging-undergirding earth, pointed at the direction it had been pointed and then indicated that the pilgrim should point his machine in a direction opposite the space station and squeeze its handle.

The pilgrim had seen and understood. Lessons he had learned about physics and chemistry and astronomy were coming back to him in a flood. There was something about an action and an equal and opposite reaction.

He pointed the machine and squeezed and released. He looked over his shoulder. The space-suited figures accelerated toward the station.

But they missed the station by fifty feet. Quickly the pilgrim turned and fired in the opposite direction, but the maneuver took

time and some of the precious contents of the hand machine to stop their progress and then reverse it. But the space station stopped receding and began to come back toward them again.

At that point the little machine gave its last little puff. The pilgrim drew back his arm to throw it away and changed his mind. He checked their progress and direction and then, as he saw they might miss again, he carefully threw the machine in a direction calculated to send them closer.

As the space station grew closer, the pilgrim fumbled with the rope that bound him to Susannah. He loosened the knot and forced one end of the rope into Susannah's hand and held the other firmly in his. He placed his foot against Susannah's side and spun her away from him in the direction of the space station.

As they approached the station, they would have passed through the gap between the rim of the wheel and the hub, but the rope held between them caught the spoke and spun them around the spoke until they clanged against it and hung on grimly.

There were handholds on the spoke. After the pilgrim had regained his breath and his nerve, he began pulling himself with painful care toward the hub, holding the end of the rope in

one hand so that Susannah would not slip away. It seemed to him that they crawled forever before they reached the hub.

The pilgrim searched for an entrance. He found a crack. He traced it. Beside the crack was a handle. He pulled it. The door swung open. Working carefully so that they did not lose their grasp on the hub at any time, the pilgrim and Susannah made their way through the door and into a small, tubular room. Opposite the door they had entered was another door and another handle. The pilgrim pulled it. The door behind them closed. A light above them and one below them came on.

The pilgrim felt as if he were a puddle of boneless flesh within his suit. Through Susannah's helmet he could see that she, too, was breathing deeply.

After a minute or two the door in front of them swung back. Gloved men moved surely to help them through the doorway. They

seemed like ordinary men in coveralls. Well, the pilgrim thought, perhaps not quite like ordinary men.

There was a certain calm sureness about them, in the way they moved in this weightless condition, a serenity of features, an air of infinite capacity. They moved quickly to take the helmets from the pilgrim's head and then Susannah's. They began stripping away the silver suit.

As the last part of their suits was removed, an older man came forward. He floated through the air as if it were the most natural method of locomotion imaginable. He held out his hands to both of them.

"Welcome!" he said in a tone that made them sure they were indeed welcome, that he was glad they had made it. "My name is John Wilson. That won't mean anything to you. But welcome. Welcome to the company of witches."

—JAMES E. GUNN

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# Beam Us Home

by JAMES TIPTREE, JR.

*Hobie always knew they'd come  
for him. But it took so long!*

Hobie's parents might have seen the first signs if they had been watching around 8:30 on Friday nights. But Hobie was the youngest of five active bright-normal kids. Who was to notice one more uproar around the TV?

A couple of years later Hobie's Friday night battles shifted to 10 PM, and then his sisters got their own set. Hobie was growing fast then. In public he featured chiefly as a tanned streak on the tennis courts and a 99th percentile series of math grades. To his parents, Hobie featured as the one without problems. This was hard to avoid in a family that included a diabetic, a girl with an IQ of 185 and another with controllable petit mal, and a would-be ski star who spent most of his time in a cast. Hobie's own IQ was in the fortunate one-for-

ties, the range where you're superior enough to lead, but not too superior to be followed. He seemed perfectly satisfied with his communications with his parents, but he didn't use them much.

Not that he was in any way neglected when the need arose. The time he got staph in a corneal scratch, for instance, his parents did a great job of supporting him through the pain bit and the hospital bit and so on. But they couldn't know all the little incidents. Like the night that Hobie called so fiercely for Dr. McCoy that a young intern named McCoy went in and joked for half an hour with the feverish boy in his dark room.

To the end, his parents probably never understood that there was anything to understand

about Hobie. And what was to see? His tennis and his model rocket collection made him look almost too normal for the small honors school he went to first. Then his family moved to an executive bedroom suburb where the school system had a bigger budget than Monaco and a soccer team loaded with National Merit Science finalists. Here Hobie blended right in with the scenery. One more healthy, friendly, polite kid with bright gray eyes under a blond bowl-cut and very fast with any sort of ball game.

The brightest eyes around him were reading *The Double Helix* to find out how to make it in research, or studying the *Wall Street Journal*. If Hobie stood out at all, it was only that he didn't seem to be worried about making it in research or any other way, particularly. But that fitted in, too. Those days, a lot of boys were standing around looking as if they couldn't believe what went on, as if they were waiting for — who knows? — a better world, their glands, something. Hobie's faintly aghast expression was not unique. Events like the installation of an armed patrol around the school enclave were bound to have a disturbing effect on the more sensitive kids. People got the idea that Hobie was sensitive in some indefinite way. His usu-

al manner was open but quiet, tolerant of a put-on that didn't end.

His advisor did fret over his failure to settle on a major field of interest in time for the oncoming threat of the college rat-race. First his math interest seemed to cop out after the special calculus course, although he never blew an exam. Then he switched to the pre-college anthropology panel the school was trying. Here he made good grades and acted very motivated, until the semester when the visiting research team began pounding on sampling techniques and statistical significance. Hobie had no trouble with things like Chi square, of course. But after making his A in the final, he gave them his sweet, unbelieving smile and faded. His advisor found him spending a lot of hours polishing a six-inch telescope lens in the school shop.

So Hobie was tagged as some kind of an under-achiever, but nobody knows what kind, because of those grades. And something about that smile bothered them; it seemed to stop sound.

The girls liked him, though, and he went through the usual phases rather fast. There was the week he and various birds went to thirty-five drive-in movies. And the two months he went

around humming Mrs. Robinson in a meaningful way. And the warm, comfortable summer when he and his then girl and two other couples went up to Stratford, Ontario with sleeping bags to see the Czech multimedia thing.

Girls regarded him as 'different,' although he never knew why. "You look at me like it's always goodbye," one of them told him. In fact he did treat girls with an odd detached gentleness, as though he knew a secret that might make them all disappear. Some of them hung around because of his quick brown hands, or his really great looks, some because they hoped to share the secret. In this they were disappointed. Hobie talked, and he listened carefully, but it never was mutual talk-talk-talk of total catharsis that most couples went through. But how could Hobie know that?

Like most of his peer group, Hobie stayed away from acid and agreed that pot was preferable to getting juiced. His friends never urged him too hard, though, after the beach party where he spooked everybody by talking excitedly for hours to people who weren't there. They decided he might have a vulnerable ego-structure.

The high-school's official view was that Hobie had no real problems. In this they were supported

by a test battery profile that could have qualified him as the ideal normal control. Certainly there was nothing to get hold of in his routine interviews with the high-school psychologist.

Hobie came in after lunch, a time when Dr. Morehouse knew he was not at his most intuitive. They went through the usual openers, Hobie sitting easily, patient and interested, with a faint air of listening to some sound back of the acoustical ceiling tiles.

"I see a lot of young people who are having their trouble discovering who they really are. Searching for their own identities," Morehouse offered. He was idly trueing up a stack of typing headed *Sex differences in the adolescent identity crisis*.

"Do you?" Hobie asked politely.

Morehouse frowned at himself and belched disarmingly.

"Sometimes I wonder who I am," he grunted.

"Do you?" inquired Hobie.

"Don't you?"

"No," said Hobie.

Morehouse reached for the hostility that should have been there, found it wasn't. Not passive aggression. What? His intuition awoke briefly. He looked into Hobie's light hazel eyes and suddenly found himself slipping to-

ward some very large uninhabited dimension. A real pubescent pre-schiz? He wondered hopefully. No, again, he decided, and found himself thinking, what if a person is sure of his identity but it isn't his identity? He often wondered that; perhaps it could be worked up into a creative insight.

"Maybe it's the other way around," Hobie was saying before the pause grew awkward.

"How do you mean?"

"Well, maybe you're all wondering who you are," Hobie's lips quirked; it was clear he was just making conversation.

"I asked for that," Morehouse smiled. They chatted about sibling rivalry and psychological statistics and wound up in plenty of time for Morehouse's next boy, who turned out to be a satisfying High Anx. Morehouse forgot about the empty place he had slid into. He often did that, too.

It was a girl who got part of it out of Hobie, at three in the morning. "Dog," she was called then, although her name was Jane. A tender, bouncy little bird who cocked her head to listen up at him in a way Hobie liked. Dog would listen with the same soft intensity to the supermarket clerk and the pediatrician later on, but neither of them knew that.

They had been talking about the state of the world, which was

then quite prosperous and peaceful. That is to say, about seventy million people were starving to death in Asia, a number of West-Hem tyrannies were maintaining themselves on police terror tactics, four or five borders were being fought over. Hobie's family's maid had just been cut up by the suburban peacekeeping squad, and the school had added a charged wire and two dogs to its patrol. But none of the big nations were waving fissionables, and the U.S.-Soviet entente was a twenty-year reality.

Dog was holding Hobie's head over the side of her car, because he had been the one who found the maid crawling on her hand-bones among the azaleas.

"If you feel like that, why don't you do something?" Dog asked him between spasms. "Do you want some Slurp? It's all we've got."

"Do what?" Hobie quavered.

"Politics?" guessed Dog. She really didn't know. The Protest Decade was long over, along with Brotherhood. There was a school legend about a senior who had come back from Chicago with a collar-bone busted by Daley's Squad. Some time after that the kids had discovered that flowers weren't really very powerful, and that CP agitators had their own bag. Why go on the street when you could really do more in one



of the good jobs available Inside? So Dog could offer only a vague image of Hobie running for something, a sincere face on TV.

"You could join the Young Statesmen."

"Not to interfere," gasped Hobie. He wiped his mouth. Then he pulled himself together and tried some of the Slurp. In the dashlight his seventeen-year-old sideburns struck Dog as tremendously mature and beautiful.

"Oh, it's not so bad," said Hobie. "I mean, it's not *unusually* bad. It's just a stage. This world is just going through a primitive stage. There's a lot of stages. It takes a long time. They're just very very backward, that's all."

"They," said Dog, listening to every word.

"I mean," he said.

"You're alienated," she told him. "Rinse your mouth out with that. You don't relate to people."

"I think you're people," he said, rinsing. He'd heard this before. "I relate to you," he said. He leaned out to spit. Then he twisted his head to look up at the sky and stayed that way awhile, like an animal's head sticking out of a crate. Dog could feel him trembling the car.

"Are you going to barf again?" she asked.

"No," he reassured her. But

then suddenly he did, roaringly. She clutched at his shoulders while he heaved. After awhile he sagged down, his head lolling limply out on one arm.

"It's such a mess," she heard him whispering. "It's such a rotten miserable mess mess mess MESS MESS —"

He was pounding his hand on the car side.

"I'll hose it," said Dog, but then she saw he didn't mean the car.

"Why does it have to go on and on?" he croaked. "Why don't they just *stop* it? I can't bear it much longer, please, please, I can't —"

Dog was scared now.

"Honey, it's not that bad, Hobie honey, it's not that bad," she told him, patting at him pressing her soft front against his back.

Suddenly he came back into the car on top of her, spent.

"It's unbearable," he muttered.

"What's unbearable?" she snapped, mad at him for scaring her. "What's unbearable for you and not for me? I mean, I know it's a mess, but why is it so bad for *you*? I have to live here too."

"It's your world," he told her absently, lost in some private desolation.

Dog yawned.

"I better drive you home now," she said.

He had nothing more to say, and sat quietly. When Dog glanced at his profile she decided he looked calm. Almost stupid, in fact his mouth hung open a little. She didn't recognize the expression, because she had never seen people looking out of cattle cars.

Hobie's class graduated that June. His grades were well up, and everybody understood that he was acting a little unrelated because of the traumatic business with the maid. He got a lot of sympathy.

It was after the graduation exercises that Hobie surprised his parents for the first and last time. They had been congratulating themselves on having steered their fifth offspring safely through the college crisis and into a high-status Eastern. Hobie announced that he had applied for the United States Air Force Academy.

This was a bomb, because Hobie had never shown the slightest interest in things military. In fact, just the opposite. Hobie's parents took it for granted that the educated classes viewed the military with tolerant distaste. Why did their son want this? Was it another of his unstable motivational orientations? But Hobie persisted. He didn't have any reasons, but he had thought care-

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fully and felt that this was for him. Finally they recalled that early model rocket collection; maybe this was something deep. His father decided he was serious, and began sorting out the generals his research firm did business with. In September Hobie disappeared into Colorado Springs. He reappeared for Christmas in the form of an exotically hairless, erect and polite stranger in uniform.

During the next four years Hobie the person became effectively invisible behind a growing pile of excellent evaluation reports. There seemed to be no doubt that he was working very hard, and his motivation gave no sign of flagging. Like everybody, he bitched about many of the Academy's little ways, and told some funny stories. But he never seemed discouraged. When he elected to spend his summers in special aviation skills training, his parents realized that Hobie had found himself.

No one was surprised when in his senior year he told them he had applied for and been accepted into the new astronaut training program. The U.S. space program was just then starting up again after the revulsion caused by the wreck of the first manned satellite lab ten years before.

"I bet that's what he had in mind all along," Hobie's father

chuckled. "He didn't want to say so before he made it." They were all relieved. A son in the Space Program was a lot easier to live with, status-wise.

When she heard the news, Dog, who was now married and called herself Jane, sent him a card with a picture of the Man in the Moon. Another girl, more perceptive, sent him a card showing some stars.

But Hobie never made it to the Space Program.

It was the summer when several not-very-serious events happened all together. The British devalued their wobbly pound again, just when it was found that far too many dollars were going out of the States. East and West Germany moved a step closer to reunion, which somehow generated a call for strengthening the U.S. contribution to the remains of NATO. Next there was an expensive, though luckily non-lethal pad fire at Kennedy. Then the Egyptians announced a new Soviet-aid pact. And in August it was discovered that the Guévarista rebels in Venezuela were getting some very unpleasant-looking hardware from their Chi-com allies.

Contrary to the old saying that nations never learn from history, the U.S. showed that it had learned from its long agony in

Vietnam. What it had learned was not to waste time messing around with popular elections and military advisory and training programs, but to ball right in. Hard.

When the dust cleared, the Space Program and astronaut training were dead on the pad, and a third of Hobie's graduating class were going through Caracas. Technically, he had volunteered.

He found this out from the task force medico.

"Look at it this way, Lieutenant. By entering the Academy, you volunteered for the Air Force, right?"

"Yes. But I opted for the astronaut program. The Air Force is the only way you can get in. And I've been accepted."

"But the astronaut program has been suspended. Temporarily, of course. Meanwhile the Air Force — for which you volunteered — has an active requirement for your training. You can't expect them just to let you sit around until the program resumes, can you? Moreover you have been given the very best option available. Hell, man, the Professional Peacekeeper Corps is considered a super-elite group. You should see the fugal depressions we have to cope with among men who have been rejected for the PPC."

"Mercenaries," said Hobie.  
"Regressive."

"Try 'professional,' it's a better word. Now — about those headaches."

The headaches eased up some when Hobie was assigned to long range sensor recon support. He enjoyed the work of flying, and the long, calm, lonely sensor missions were soothing. They were also quite safe. The Guevarristas had no air strength to waste on recon planes, and the Chicom VAM sites were not yet operational. Hobie flew the pattern, and waited, zombie-like, for the weather, and flew again. Mostly he waited, because the fighting was developing in a steamy jungle province where clear sensing was a sometime thing. It was poorly mapped. The ground troops could never be sure about the little brown square men who gave them so much trouble; on one side of an indefinite line they were Guevarristas who should be obliterated, and on the other side they were legitimate national troops warning the blancos away. Hobie's recon tapes were urgently needed, and for several weeks he was left alone.

Then he began to get pulled up to a forward strip for one-day chopper duty when their tactical duty roster was disrupted by geegee. But this was relatively peaceful too, being mostly defoliant

**BEAM US HOME**

spray missions. Hobie in fact put in several months without seeing, hearing, smelling or feeling the war at all. He would have been grateful for this if he had realized it. As it was he seemed to be trying not to realize anything much. He spoke very little, did his work and moved like a man whose head might fall off if he jostled anything.

Naturally he was one of the last to hear the rumors about geegee when they filtered back to the coastal base, where Hobie was quartered with the long-range stuff. Geegee's proper name was Guairas Grippe. It was developing into a severe problem in the combat zone. More and more replacements and relief crews were being called forward for temporary tactical duty. On Hobie's next trip in, he couldn't help but notice that people were acting pretty haggard, and the roster was all scrawled up with changes. When they were on course he asked about it.

"Are you kidding?" his gunner grunted.

"No. What is it?"

"B.W."

"What?"

"Bacteriological weapon, sky-head. They keep promising us vaccines. Stuck in their zippers — look out, there's a ground burst.

They held Hobie up front for another mission, and another after that, and then they told him that a sector quarantine was now in force.

The official notice said that movement of personnel between sectors would be reduced to a minimum as a temporary measure to control the spread of respiratory ailments. Translation: You could go from the support zone to the front, but you could not go back.

Hobie was moved into a crowded billet and assigned to casualty and supply duty. Shortly he discovered that there was a translation for respiratory ailments, too. Geegee turned out to be a multiform misery of groin rash, sore throat, fever and unending trots. It didn't seem to become really acute, it just cycled along. Hobie was one of those who were only lightly affected, which was lucky, because the hospital beds were full. So were the hospital aisles. Evacuation of all casualties had been temporarily suspended until a controlled corridor could be arranged.

The Gués did not, it seemed, get geegee. The ground troops were definitely sure of that. Nobody knew how it was spread. Rumor said it was bats one week, and then the next week they were putting stuff in the water. Poisoned arrows, roaches,

women, disintegrating cannisters, all had their advocates. However it was done, it was clear that the chicom technological aid had included more than hardware. The official notice about a forthcoming vaccine yellowed on the board.

Ground fighting was veering closer to Hobie's strip. He heard mortars now and then, and one night the Gués ran in a rocket launcher and nearly got the fuel dump before they were chased back.

All they got to do is wait," said the gunner. "We're dead."

"Geegee doesn't kill you," said C/S control. "You just wish it did."

"They say."

The strip was extended, and three attack bombers came in. Hobie looked them over. He had trained on AX92's all one summer, until he could fly them in his sleep. It would be nice to be alone.

He was pushing the C/S chopper most of the daylight hours now. He had got used to being shot at and to being sick. Everybody was sick, except a couple of replacement crews who were sent in two weeks apart, looking startlingly healthy. They said they had been immunized with a new antitoxin. Their big news was that geegee could be cured outside the zone.

"We're getting reinfected," the gunner said. "That figures. They want us out of here."

That week there was a big drive on bats, but it didn't help. The next week the first batch of replacements were running fevers. Their shots hadn't worked and neither did the stuff they gave the second batch. After that, no more men came in except a couple of volunteer medicos. The billets and the planes and the mess were beginning to stink. That dysentery couldn't be controlled after you got weak.

What they did get was supplies. Everyday or so another ton of stuff would drift down. Most of it was dragged to one side and left to rot. They were swimming in food. The staggering cooks pushed steak and lobster at men who shivered and went out to retch. The hospital even had ample space now, because it turned out that geegee really did kill you in the end. By that time, you were glad to go. A cemetery developed at the far side of the strip, among the skeletons of the defoliated trees.

It was on that last morning that Hobie was sent out to pick up the long-range patrol. He was one of the few left with enough stamina for long missions. The three-man patrol was far into Gué territory, but Hobie didn't

care. All he was thinking about was his bowels. So far he had not fouled himself or his plane. When he was down by their signal he bolted out and under the chopper's tail. The patrol climbed in, yelling at him.

They had a prisoner with them. The Gué was naked and astonishingly broad. He walked springily; his arms were lashed with wire and a shirt was tied over his head. This was the first Gué Hobie had been close to. As he got in he saw how the Gué's firm brown teeth glistened and bulged around the wire. He wished he could see his face. The gunner said the Gué was a Siriono, and this was important because the Sirionos were not known to be with the Gués. They were a very primitive nomadic tribe.

When Hobie began to fly home he realized he was getting sicker. It became a fight to hold onto consciousness and keep on course. Luckily nobody shot at them. At one point he became aware of a lot of screaming going on behind him, but couldn't pay attention. Finally he came over the strip and horsed the chopper down. He let his head down on his arms.

"You okay?" asked the gunner.

"Yeah," said Hobie, hearing them getting out. They were moving something heavy. Finally he got up and followed them. The floor was wet. That wasn't unus-

ual. He got down and stood staring in, the floor a foot under his nose. The wet stuff was blood. It was sprayed around, with one big puddle. In the puddle was something soft and fleshy-looking.

Hobie turned his head. The ladder was wet, too. He held up one hand and looked at the red. The other one, too. Holding them out stiffly he turned and began to walk away across the strip.

Control, who still hoped to get an evening flight out of him, saw him fall and called the hospital. The two replacement parameds were still in pretty good shape. They came out and picked him up.

When Hobie came to, one of the parameds was tying his hands down to the bed so he couldn't tear the IV out again.

"We're going to die here," Hobie told him.

The paramed looked noncommittal. He was a thin dark boy with a big Adam's apple.

"But I shall dine at journey's end with Landor and with Donne," said Hobie. His voice was light and facile.

"Yeats," said the paramed. "Want some water?"

Hobie's eyes flickered. The paramed gave him some water.

"I really believed it, you know," Hobie said chattily. "I

had it all figured out." He smiled, something he hadn't done for a long time.

"Landor and Donne?" asked the medic. He looked at the emptying IV bottle and set it down again.

"Oh, it was pathetic, I guess," Hobie said. "It started out . . . I believed they were real, you know? Kirk, Spock, McCoy, all of them. And the ship. To this day, I swear . . . One of them talked to me once, I mean, he really did . . . I had it all figured out, they had left me behind as an observer.

"They were coming back for me. It was my secret. All I had to do was sort of fit in and observe. Like a report. One day they would come back and haul me up in that beam thing; maybe you know about that? And there I'd be back in real time where human beings were, where they were human. I wasn't really stuck here, stuck in the past. On a backward planet."

The paramed nodded.

"Oh, I mean, I didn't really believe it, I knew it was just a show. But I did believe it, too. It was like there somewhere, in the background, underneath no matter what was going on. What I was doing. They were coming for me. All I had to do was observe. And not to interfere. You know? First law . . . Of course after I

grew up, I realized they weren't, I mean I realized consciously. So I was going to go to them. Somehow, somewhere. Out there . . . Now I know. It really isn't so. None of it. Never. There's nothing. There's no . . . Now I know I'll die here."

"Oh now," said the paramed. He got up and started to take the IV away. His fingers were shaky.

"It's clean there," said Hobie in a petulant voice. "None of this mess. Clean and friendly. They don't shoot people," he explained, thrashing his head. "They don't . . ." He slept. The paramed went away.

Somebody started to yell monotonously.

Hobie opened his eyes. He was burning up.

The yelling went on, became screaming. It was dusk. Footsteps went by, headed for the screaming. Hobie saw they had put him in a bed by the door.

Without his doing much about it the screaming seemed to be lifting him out of the bed, propelling him through the door. Air. He kept getting close-ups of his hands clutching things. Bushes, shadows. Something scratched him.

After a while the screaming was a long way behind him. Maybe it was only in his ears. He shook his

head, felt himself go down on something. He seemed to be in the cemetery.

"No," he said. "Please. Please. No." He got himself up, balanced, blundered on. Seeking coolness.

The side of the plane felt cool. He plastered his hot body against it, patting it affectionately. It seemed to be quite dark now. Why was he inside with no lights? He tried the panel, the lights worked perfectly. Vaguely he noticed some yelling starting outside again. It ignited the screaming in his head. The screaming got very loud — loud — **LOUD** — and seemed to be moving him which was good.

He came to above the overcast and climbing. The oxy support tube was hitting him in the nose. He grabbed for the mask, but it wasn't there. Automatically he had leveled off. Now he rolled and looked around.

Below him was a great lilac sea of cloud, with two mountains sticking through it, their western tips on fire. As he looked, they dimmed. He shivered, found he was wearing only sodden shorts. How had he got here? Somebody had screamed unbearably and he had run.

He flew along calmly, checking his board. No trouble except the fuel. Nobody to service the AX92's any more. Without think-



ing about it, he began to climb again. His hands were a yard away and he was shivering but he felt clear. He reached up and found his headphones were in place; he must have put them on along with the rest of the drill. He clicked on. Voices rattled and roared at him. He switched off. Then he took off the headpiece and dropped it on the floor.

He looked around. 18,000, heading 88-05. He was over the Atlantic. In front of him the sky was darkening fast. A pinpoint glimmer 10 o'clock high. Sirius, probably.

Carefully he began feeding to his torches and swinging the nose of his pod around and up. He brought it neatly to a point on Sirius. Up. Up. Behind him, a great pale swing of contrail fell away above the lilac shadow, growing, towering to the tiny plane that climbed at its tip. Up. Up. The contrail cut off as the plane burst into the cold dry.

As it did so, Hobie's ears skewed, and he screamed wildly. The pain quit; his drums had burst. Up. Now he was gasping for air, strangling. The great torches drove him on, up, above the curve of the world. He was hanging on the star. Up! The fuel gauges were knocking. Any second they would quit and he and the bird would then start to fall.

"Beam us back, Scotty!" he howled at Sirius, laughing, coughing—to death as the torches faltered —

And he was still coughing as he sprawled on the shining resiliency under the malfunctioning grids. He gagged, rolled, finally focussed on a personage leaning toward him out of a complex chair. The personage had round eyes, a slitted nose and the start of a quizzical smile. Hobie's head swivelled slowly. It was not the bridge of the *Enterprise*. There were no view-screens, only a View. And Lieutenant Uhura would have had trouble with the freeform flashing objects suspended in front of what appeared to be a girl wearing spots. The spots, Hobie made out, were fur.

Somebody who was not Bones McCoy was doing something to Hobie's stomach. Hobie got up a hand and touched the man's gleaming back. Under the mesh it was firm and warm. The man looked up, grinned; Hobie looked back at the captain.

"Do not have a fear," a voice was saying. It seemed to be coming out of a globe by the captain's console. "We will tell you where are you."

"I know where I am," Hobie whispered to the captain.

"I'm HOME!" he yelled. Then he passed out.

—JAMES TIPTREE, JR.

GALAXY

# How Like A God

by ROBERT BLOCH

Illustrated by REESE

*His crime was cruelty. His  
sentence was to spend eternity  
with the cruelest race in space!*

I

To be was sweet.

There was meditation — a turning-in upon one's self. There was contemplation — a turning-out to regard others, and otherness.

In meditation one remained contained. In contemplation there was a merging, a coalescence with the rest.

Mok preferred meditation. Here Mok enjoyed identity and was conscious of being *he, she* or *it*, endlessly repeated through

the memory of millenniums of incarnations. Mok, like the others, had evolved through many life-forms on many worlds. Now Mok was free of the pain and free of the pleasures, too, free of the illusions of the senses which had served the bodies housing the beings which finally became Mok.

And yet, Mok was not wholly free. Because Mok still turned to the memories for satisfaction.

The others preferred contemplation. They enjoyed coalescing, mingling their memories, pooling their awareness and sharing their sense of being.

Mok could never share completely. Mok was too conscious of the differences. For even without body, without sex, without physical limitation imposed by substance in time and space, Mok was aware of inequality.

Mok was aware of Ser.

Ser was the mightiest of them all. In coalescence, Ser's being dominated every pattern of contemplation. Ser's will imposed harmony on the others, but only if the others surrendered to it.

To be was sweet. But it was not sweet enough.

Upon this, Mok meditated. And when coalescence came again, Mok did not surrender. Mok fixed firmly upon the concept of freedom — freedom of choice, the final freedom which Ser denied.

There was agitation amongst

the others; Mok sensed it. Some attempted to merge with Mok, for they too shared the concept, and Mok opened to receive them, feeling the strength grow. Mok was as strong as Ser now, stronger, calling upon the will and purpose born of memories of millions of finite existences in which will and purpose were the roots of survival. But that survival had been temporary, and this would be permanent, forever.

Mok held the concept, gathered the strength, firmed the purpose — and then, quite suddenly, the purpose faded. The strength oozed away. The others were gone; nothing was left but Mok and the concept itself. The concept to —

Mok couldn't grasp the concept now. It had vanished.

All that remained was Mok and Ser. Ser's will, obliterating concept and purpose and strength, imposing itself upon Mok, invading and inundating Mok's awareness. Mok's very *being*. But without concept there was no purpose, without purpose there was no strength, without strength Mok could not preserve awareness, and without awareness there was no being.

*Without being there was no Mok.*

When Mok's identity returned he was in the ship.

*Ship?*

Only memories of distant incarnations told Mok this was a ship, but it was unmistakably so: a ship, a vessel, a transporter, a physical object, capable of physical movement through space and time.

Space and time existed again, and the ship moved through them. The ship was confined in space and time, and Mok was confined in the ship, which was just large enough to house him as he journeyed.

Yes, *he*.

Mok was *he*. Confined now, not only in the prison of space and time, nor in the smaller prison of the ship, but in the prison of a body. A male body.

Male. Mammalian. A spine to support the frame, arms and legs to support and grasp, eyes and ears and nose and other crude sensory receivers. Flesh, blood, skin — yellowish fur covering the latter, even along the lashing tail. Lungs for oxygen intake, which at the moment was supplied by an ingenious transparent helmet and attached pack mechanism.

Ingenious? But this was clumsy, crude, primitive, a relic of remote barbaric eras Mok could only vaguely recall. He tried to meditate, tried to contemplate, but now he could only see — see through the transparency of the

helmet as the ship settled to rest and its belly opened to catapult him forth upon the frigid surface of a barren planet where a cold moon wheeled against the icy glitter of distant stars.

The ship, too, had a form — a body that was in itself vaguely modeled on mammalian concept, almost like one of those giant robots developed by life-forms in intermediate stages of evolution.

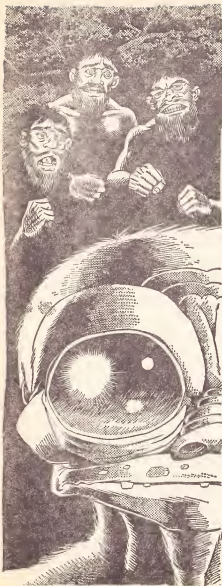
Mok stared at the ship as it rested before him on the sterile, starlit slope. Yes, the ship had a domed cranial protuberance and two metal arms terminating in claws. Claws to open the belly of the ship, claws that had lifted Mok's body forth to disgorge him from the belly in a parody of birth.

Now, as Mok watched, the ship's belly was closing again, sealing tightly while the metallic claws returned to rest at its sides. And flames of force were blasting from the pediment.

The ship was rising, taking off.

Mok had been embodied in the confines of the ship, imprisoned in this, his present form. The ship had carried him to this world and now it was leaving him here. Which meant that the ship must be —

"Ser!" he screamed, as the realization came, and the sound of his voice echoing in the hollow helmet almost split his skull.



But Ser did not answer. The ship continued to rise, the rising accelerated, there was a roar and a glimmer and then an incandescence which faded to nothingness against the black backdrop of emptiness punctured by glittering pinpoints of light flickering down upon the world into which Mok had been born.

The world where Ser had left him to die . . .

## II

Mok turned away. His body burned? *Burned?* Mok searched archaic memories and came up with another concept. He wasn't burning. He was freezing. This was cold.

The surface of the planet was cold, and his skin — *fur?* — did not sufficiently protect him. Mok took a deep breath, and that in turn brought consciousness of the inner mechanism: circulation, nervous system, lungs. Lungs for breath, supplying the fuel of life.

The feeder-pack on his back was small. Its content, scarcely enough to fill his needs on the flight here, would soon be exhausted.

Was there oxygen on the surface of this planet? Mok glanced around. The rocky terrain was devoid of vegetation, and that was not a promising sign. But perhaps the entire surface wasn't like

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this; in other areas at lower levels, plant-life might flourish. If so, functioning existence could be sustained.

There was only one way to learn. Mok's prehensile appendages — not exactly claws, not quite fingers — fumbled clumsily with the fastenings of the helmet and raised it gingerly. He took a shallow breath, then another. Yes, there was oxygen present.

Satisfied, Mok removed helmet and pack, along with the control mechanism strapped to his side. There'd be no further need of this apparatus here.

What he needed now was warmth, a heated atmosphere.

He glanced towards the bleak, black bulk of crags looming across the barren plain. He moved towards them slowly, under the silent, staring stars, toiling up a slope as a sudden wind tore at his shivering body. It was awkward, this body of his, a clumsy mechanism subject to crude muscular control. Only atavism came to his aid as half-perceived memories of ancient physical existence enabled him to move his legs with proper coordination. Walking — climbing — then crawling and clinging to the rocks — all was demanding, difficult, a challenge to be met and mastered.

But Mok ascended the face of the nearest cliff and found the

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opening, a crevasse with an inner fissure that became the mouth of a cave. A dark shelter from the wind, but it was warmer here. And the rocky floor sloped into deeper darkness. The pupils of his eyes accommodated, and he could guide himself in the dim tunnelway, for his vision was that of a feral nyctalops.

Mok crept through caverns like a giant cat, gusts of warm air billowing against his body to beckon him forward. Forward and down, forward and down. And now the heat rose about him in palpable waves, the air singed with an acrid scent, and there was a glowing from a light source ahead. Forward and down towards the light source, until he heard the hissing and the rumbling, felt the scalding steam, breathed the lung-searing gases, saw the spurting flames in which steam and gas were born.

The inner core of the planet was molten!

Mok went no further. He turned and retreated to a comfortable distance, moving into a side passageway which led to still other offshoots. Here tortuous tunnels branched in all directions, but he was safe in warmth and darkness; safe to rest. His body — this corporeal prison in which he was doomed to dwell — needed rest.

Rest was not sleep. Rest was not hibernation, or estivation, or

any of a thousand forms of suspended animation which Mok's memory summoned from myriad incarnations in the past. Rest was merely passivity. Passivity and reflection.

Reflection. . . .

Images mingled with long-discarded verbal concepts. With their aid, while passive, Mok formulated his situation. He was in the body of a beast, but there were subtle differentiations from the true mammal. Oxygen was needed, but not the respite of true sleep. And he felt no visceral stirrings, no pangs of physical hunger. He would not be dependent, he knew, upon the ingestion of alien substance for continued survival. As long as he protected his fleshly envelope from extremes of heat and cold, as long as he avoided excessive demands upon muscles and organs, he would exist. But despite the difference which distinguished him from a true mammal, he was still confined to his feral form. And his existence was bestial.

Sensation surged within him, a flood of feeling Mok had not experienced in aeons, a quickening, sickening, burning, churning evocation of emotion. He knew it now. It was fear.

*Fear.*

The true bondage of the beast. Mok was afraid, because now

he understood that this was planned, this part of Ser's purpose. Ser had committed him to this degradation and modified his mammalian aspect so that he could exist eternally.

That was what Mok feared. Eternity in *this* form!

Passive no longer, Mok flexed and rose. Summoning cognition to utmost capacity, Mok searched within himself for other, inherent powers. The power to merge, to coalesce — that was gone. The power to transmute, to transfer, to transport, to transform—gone. He could not change his physical being, could not alter his physical environment, save by physical means of his own devising within the limitations of his beast's body.

So there was no escape from this existence.

*No escape.*

The realization brought fresh fear, and Mok turned and ran. Ran blindly through the twisting corridors, fear riding him as he raced, raced mindlessly, endlessly.

Somewhere along the way a tunnel burrowed upwards. Mok toiled through it, panting and gasping for breath; he willed himself to stop breathing but the body, the beast-body, sucked air in greedy gulps, autonomically functioning beyond his conscious control.





Scrambling along slanted spirals, Mok emerged once more upon the outer surface of his planetary prison. This was a low-lying area, distant and different from his point of entry, with vegetation vividly verdant against a dazzling dawn — a valley, capable of supporting life.

And there was life here! Feathery forms chattering in the trees, furry figures scurrying through undergrowth, scaly slitherers, chitinous burrowers buzzing. These were simple shapes, crudely conceived creatures of primitive pursuits, but alive and aware.

Mok sensed them, and they sensed Mok. There was no way of communicating with them except vocally, but even the soft sounds issuing from his throat sent them fleeing frantically. For Mok was a beast now, who feared and was feared.

He crouched amongst the rocks at the mouth of the cavern from which he had come forth and gazed in helpless, hopeless confusion at the panic his presence had provoked, and the soft sounds he uttered gave place to a growling groan of despair.

And it was then that they found him — the hairy bipeds, moved cautiously to encircle him until he was ringed by a shambling band. These were troglodytes, grunting and snuffling and giving off an acrid stench of min-

gled fear and rage as they cautiously approached.

Mok stared at them, noting how the hunched, swaying figures moved in concert to approach him. They clutched crude clubs, mere branches torn from trees; some carried rocks scooped up from the surface of the slope. But these were weapons, capable of inflicting injury, and the hairy creatures were hunters seeking their prey.

Mok turned to retreat into the cavern, but the way was barred now by shaggy bodies, and there was no escape.

The troglodytes pressed forward now, awe and apprehension giving place to anger. Yellow fangs bared, hairy arms raised. One of the creatures — the leader of the pack — grunted what seemed a signal.

And they hurled their rocks.

Mok raised his arms to protect his head. His vision was blocked, so that he heard the sound of the stones clattering against the slope before he saw them fall. Then, as the growls and shrieks rose to a frenzy. Mok glanced up to see the rocks rebounding upon his attackers.

Raging, they closed in to smash at Mok's skull and body with their clubs. Mok heard the sounds of impact, but he felt nothing, for the blows never reached their in-

tended target. Instead, the clubs splintered and broke in empty air.

Then Mok whirled, confused, to face his enemies. As he did so they recoiled, screaming in fright. Breaking the circle, they retreated down the slopes and into the forest, fleeing from this strange thing that could not be harmed or killed, this invincible entity—

*This invincible entity.*

It was Mok's concept, and he understood, now. Ser had granted him that final irony — invincibility. A field of force, surrounding his body, rendering him immune to injury and death. No doubt it also immunized him from bacterial invasion. He was in a physical form, but one independent of physical needs to sustain survival; one which would exist, indestructibly, forever. He was, in truth, imprisoned, and eternal.

For a moment Mok stood stunned at the comprehension, blankly blinded by the almost tangible intensity of black despair. Here was the ultimate horror — doom without death, exile without end, isolation throughout infinity. *Alone forever.*

Numbed senses reasserted their sway, and Mok glanced around the empty stillness of the slope.

It wasn't entirely empty. Two of the troglodytic creatures sprawled motionless on the rocks directly below him. One was

bleeding from a gash in the side of his head, inflicted by a rebounding club, the other had been felled by a glancing blow from a stone.

These creatures weren't immortal.

Mok moved toward them, noting chest movement, the soft saturation of breath.

They weren't immortal, but they were still alive. Alive and helpless. Vulnerable, at his mercy.

*Mercy.* The quality Ser had refused to show Mok. There had been no mercy in condemning him to spend eternity here alone.

Mok halted, peering down at the two unconscious forms. He made a sound in his throat, a sound that was curiously like a chuckle.

Perhaps that was a way out, after all, a way to at least mitigate his sentence here. If he showed mercy now, to these creatures — he might not always be alone.

Mok reached down, lifting the body of the first creature in his arms. It was heavy in its limpness, but Mok's strength was great. He picked up the second creature carefully, so as not to injure it further.

Then, still chuckling, Mok turned and carried the two unconscious forms back into the cavern.

### III

In the warm, firelit shelter of the deeper caverns, Mok tended to the creatures. While they slumbered fitfully, he ascended again to the surface and foraged for their nourishment in the green glades. He brought food and, calling upon distant memories, fashioned crude clay pots in which to carry water to them from a mountainside spring.

After a time they regained consciousness and they were afraid — afraid of the great beast with the bulging eyes and lashing tail, the beast they knew to be deathless.

It was simple enough for Mok to fathom the crude construct of growls and gruntings which served these life-forms as a principal means of communication, simple enough to grasp the limited concepts and references symbolized in their speech. Within these limitations he attempted to tell them who and what he was and how he had come to be here, but while they listened they did not comprehend.

And still they feared him, the female specimen more than the male. The male, at least, evinced curiosity concerning the clay pots, and Mok demonstrated the fashioning method until the male was able to imitate it successfully.

But both were wary, and both reacted in terror when confronted with the molten reaches of the planet's inner core. Nor could they become accustomed to the acrid gases, the darkness enveloping the maze of far-flung fissures honeycombing the substrata. As they gathered strength over the passage of time, they huddled together and murmured, eyeing Mok apprehensively.

Mok was not too surprised when, upon returning from one of his food-gathering expeditions to the surface, he discovered that they were gone.

But Mok was surprised by the strength of his own reaction — the sudden responsive surge of *loneliness*.

Loneliness — for those creatures? They couldn't conceivably serve as companions, even on the lowest level of such a relationship; and yet he missed their presence. Their mere presence had in itself been some assuagement to his own inner agony of isolation.

Now he realized a growing sympathy for them in the helplessness of their abysmal ignorance. Even their destructive impulses excited pity, for such impulses indicated their constant fear. Beings such as these lived out their tiny span in utter dread; they trusted neither their environment nor one another, and each

new experience or phenomenon was perceived as a potential peril. They had no hope, no abstract image of the future to sustain them.

Mok wondered if his two captives had succeeded in their escape. He prowled the passages searching for them, visioning their weary wanderings, their pathetic plight if they had become lost in the underground fastnesses. But he found nothing.

Once again he was alone in the warm beast-body that knew neither fatigue nor pain — except for this new pang, this lonely longing for contact with life on any level. Ancient concepts came to him, identifying the nuances of his reactions, all likened and linked to finite time-spans. *Monotony. Boredom. Restlessness.*

These were the emotive elements which forced him up again from the confined comfort of the caves. He prowled the planet, avoiding the bleak, cold wastes and searching out the areas of lush vegetation. For a long period he encountered only the lowest life-forms.

Then one of his diurnal forays to the surface brought him to a stream, and as he crouched behind a clump of vegetation he peered at a group of troglodytes gathered on its far bank.

Vocalizing in their pattern of

growls and grunts, he ventured forth, uttering phonic placations. But they screamed at the sight of him, screamed and fled into the forest, and he was left alone.

Left alone, to stoop and pick up what they had abandoned in their flight — *two crude clay containers, half-filled with water.*

Now he knew the fate of his captives.

They had survived and returned to their own kind, bringing with them their newly acquired skill. What tales they had told of their experience he could not surmise, but they remembered what he had taught them. They were capable of learning.

Mok had no need of further proof, and the incentive was there; the compound of pity, of concern for these creatures, of his own need for contact on any level. And here was a logical level indeed — there would never be companionship, that he understood and accepted, but this other relationship was possible. The relationship between teacher and pupil, between mentor and supplicant, between the governing power and the governed.

*The governing power. . . .*

Mok turned the clay containers this way and that, noting the clumsiness with which they had been fashioned, noting the irregularities of their surface. He could

so easily correct that clumsiness, he could so surely smooth and reshape that clay. Govern the earth, govern the creatures, impart and instruct that which would shape them anew.

And then the ultimate realization came.

This would be duty and destiny, function and fulfillment. Within the prison of space and time, he would mold the little lives.

Now he knew his own fate.

He would be their god.

#### IV

It was a strange role, but Mok played it well.

There were obstacles, of course. The first to be faced was the fear in which they held him. He was an alien, and to the primitive minds of these creatures, anything alien was abhorrent. His very appearance provoked reactions which prevented him from approaching them, and for a time Mok despaired of overcoming this communication barrier. Then, slowly he came to the realize that their fear was in itself a tool he could employ to positive ends. With it he could invoke awe, authority, awareness of his powers.

Yes, that was the way. To accept his condition and stay apart from them always, confident that in time their own curiosity would

drive them to seek them out.

So Mok kept to the caves, and gradually the contacts were made. Not all of the Hominids came to him, of course, only the boldest and most enterprising, but these were the ones he awaited. These were the ones most fitted to learn.

As he expected, the experience of his captives became a legend, and the legend led to worship. It was useless for Mok to discourage this, impossible even to make the attempt in the light of their primitive reasoning, a barter-system must prevail. Offerings and sacrifices were the price they must pay in return for wisdom. Mok scanned his own primordial memories, assigning an order to the learning he imparted: the gift of fire, the secret of cultivation, the firing of clay, the shaping of weapons, the subjugation and domestication of lesser life-forms, the control and eradication of others. Slowly a more sophisticated system of communication evolved, first on the verbal and then on the visual level.

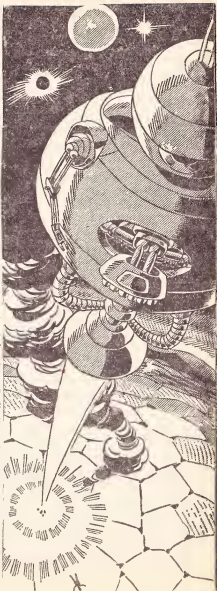
The creatures disseminated his wisdom, absorbing it into their crude culture. They learned the uses of wheel and lever, then reached the gradual abstraction of the numeral concept. Now they were capable of making their own independent discoveries; language and mathematics stimulated self-development.

But in times of crisis there was still a need for further enlightenment. Natural forces beyond their limited powers of control brought periodic disaster to life-patterns on the surface of the planet, and with every upheaval came a resurgence of the worship and sacrifices Mok secretly abhorred. Yet these creatures seemed to feel the necessity of making recompense for the skills he could grant them and the bonus these skills conferred, and Mok reluctantly accepted this.

It was harder for him to accept the continuation of their fear.

For a time he hoped that as their enlightenment increased they would revise their attitudes. Instead, their dreads actually increased. Mok attempted to observe their progress at first hand, but there was no opportunity for open contact and communication, and his mere appearance provoked panic. Even those who sought him in secret, or led the rituals of worship, seemed to be afraid of acknowledging the fact, lest it lessen their own superior status within the group. Acknowledging and acclaiming the existence of their god, they nevertheless avoided his physical presence.

Perhaps it was because sects and schisms had sprung up, each with its own hierarchy, its own dogma regarding the true na-



ture of what they worshipped. Mok remembered, wryly, that in organized religion the actual presence of a god is an embarrassment.

So Mok refrained from further visitations, and as time passed he retreated deeper and deeper into the caverns. Now it was almost unnecessary for him to maintain even token contact, for these creatures had evolved to a stage where they were capable of self development.

But even gods grow lonely, and take nurture in pride. Thus it was that at rare intervals, and in utmost secrecy, Mok ventured forth for a hasty glimpse of his domain.

One evening he came forth upon a mountaintop. Here the stars still glittered coldly, but there was an even greater glitter emanating from the expanse below — the huge city-complex towering as a testament to the wisdom of these creatures, and his own.

Mok stared down, and the sweet surges of pride coursed through him as he contemplated what he had wrought. These toys, these trifles with which he played, now toyed and trifled with the prime forces of the universe to create their own destiny.

Perhaps he, as their god, was misunderstood, even forgotten now. But did it matter? They had

achieved independence, they did not need him any more.

*Or did they?*

The concept came, and it was more chilling to Mok than the wind of mountain night.

These creatures created, but they also destroyed. And their motivations — their greeds, their hungers, their lusts, their fears — were still those of the beasts they had been. The beasts they could become again, if spiritual awareness did not keep pace with material attainment.

There was still a need here, a need greater than before. And now Mok felt no pride, only perplexity which pierced more poignantly than pain.

How could he help them?

*"You cannot."*

The communication came, and Mok whirled.

Absorbed, he had not sensed the silent streaking of the ship from sky to surface, but it was here now, remembered and recognized. The ship which had captured and conveyed him, the strangely shaped ship which was Ser —

It hovered incandescently against the horizon of infinity, and as if communication had been a signal, Mok found himself caught up in a long-discarded reaction. He was *contemplating* Ser.

And in that colloquy, Ser's concepts flowed to him.

"Valid. You cannot fulfill their needs. Already you have done too much."

Despite conscious volition, Mok felt the stubborn resurgence of his pride. But there was no need to formulate the reasons, for Ser's contemplation was complete.

"You are in error. I sensed your rebellion, overcame you,, brought you here — but it was not a punishment. You were placed for a purpose. Because this pride, this urge to invest identity through achievement, could be of use at this time, in this place. Like the others."

"Others?" Confusion colored Mok's contemplation.

"Did you conceive of yourself as the only rebel? Not so. There have been more, many more. And they have served their purposes on other worlds throughout the cosmos. Worlds where the seeds of life needed cultivation and careful nurturing. I chose them for their tasks, just as I chose you. And you have not failed."

Mok considered, then communicated with an energy which surprised him.

"Then let me continue! Endow me with what is necessary to help them now!"

Ser's concept came. "It is not possible."

Mok contemplated in final effort. "But it is my right to do so. I am their god."

"No," Ser answered. "You have never been their god. You were chosen for what you were — to be their devil."

*Devil. . .*

There was no contemplation now, only maddening meditation as Mok scanned through concepts long discarded from incarnations long lost save in immutable memory. Concepts of *good, evil, right, wrong* — concepts embodied in the primitive religions of a million primitive pasts. God arose from those concepts, and so did the embodiment of an opposing force. And in all the legends in each of the myriad myths, the pattern was the same. A rebel cast down from the skies to tempt with teaching, to furnish forbidden knowledge at a price. A being in the form of a beast, skulking in darkness, in the pit where inner fires flamed forever. And he had been this being; it was true, he was a devil.

Only pride had blinded him to the truth the pride which had prompted him to play god.

"A pride of which you have been purged," Ser's communication continued. "One can sense in you now only mercy and compassion for these creatures and their potential peril. One can sense love."



"It is true," Mok acknowledged. "I feel love for them."

Ser's assent came. "With your aid, these creatures evolved. But you have evolved too — losing pride, gaining love. In so doing, you cannot function for them as their devil any longer. Your usefulness here is ended."

"But what will happen?"

The answer came not as a concept but as an accomplishment.

Suddenly Mok was no longer in the tawny body of the beast. He was in the ship, hovering and gazing down at that body; gazing down at the creature which lashed its tail and stared up at him with bulging eyes. The creature which now contained the essence of Ser.

And Ser communicated. "For a span you shall take my place, as you once desired. You will seed the stars, instill order in chaos, lead the others in contemplation. You will do so in understanding, and in love."

"And you?" Mok asked.

The being in the bestial body formed a final concept. "I take your role and your responsibility. There is that within me which must also be purged, and it may be I will destroy much of what

you have created here. But in the end, even as their devil, I may bring them to an ultimate salvation. The cycle changes."

Mok willed the celestial machine in which his essence dwelt, willed it to rise, and like a fiery chariot it ascended to the realms of glory awaiting him in the skies beyond.

As he did so, he caught a fleeting glimpse of Ser.

The beast had turned to descend the mountain. Padding purposefully, the devil was entering his kingdom.

Mok's comprehension faltered. *Cycle?* Ser had been a god and now he was a devil. Mok had been a devil and now he was a god. But he could never have become a god if Ser hadn't willed the exchange of roles.

Was this Ser's intent all along — to allow Mok to evolve as devil and then usurp his identity?

In that case, Ser was actually a devil from the beginning, and Mok had been right in opposing him, for Mok was truly godlike.

Or were they all — Mok, Ser, the others, even the primitive mammalian creatures on this planet — both gods and devils?

It was a matter, Mok decided, which might require an eternity of contemplation. . . . **END**

**REMEMBER:** New subscriptions and changes of address require 5 weeks to process!

# BUCKETS OF DIAMONDS

by CLIFFORD D. SIMAK

Illustrated by BARR

*Uncle George was a dealer in junk  
— such as diamonds and great art!*

I

The police picked up Uncle George walking west on Elm street at 3 o'clock in the morning. He was shuffling along, muttering to himself, and his clothes

were soaked, as if he'd been out in the rain — and Cottonwood country for the last three months had been suffering a drought, with the corn withering in the field and day after day not a cloud in sight. He was carrying

a good-sized painting underneath one arm and in the other hand he carried a pail filled to the brim with diamonds. He was in his stocking feet; he'd lost his shoes somewhere. When Officer Alvin Saunders picked him up, he asked Uncle George what was going on, and George mumbled something that Alvin couldn't quite make out. He seemed to be befuddled.

So Alvin took him to the station, and it wasn't until then they saw that his pockets bulged. So they emptied his pockets and laid all the stuff out on a table, and when they'd had a good look at it, Sergeant Steve O'Donnell phoned Chief Chet Burnside to ask him what to do. The chief, sore at being hauled out of bed, said to throw George into pokey. So that is what they did. You couldn't really blame the chief, of course. Off and on, for years, Uncle George had given the police force of Willow Grove a fair amount of trouble.

But as soon as Uncle George had a chance to look around and realize where he was, he grabbed up a stool and beat upon the bars, yelling that the dirty fuzz had framed him once again and declaring very loudly that his constitutional rights as a free and upright citizen were being trampled on. "I know my rights," he yelled. "You owe me at least

one phone call and when I get out of here I'm going to sue all of you on the grounds of false arrest."

So they unlocked the cell and let him make his call. As usual he made the call to me.

"Who is it?" Elsie asked, sitting up in bed.

"It's your Uncle George," I said.

"I knew it!" I said.

"I knew it!" she exclaimed. "Aunt Myrt is off to California to visit relatives. And he's running loose again."

All right," I said to George, "what could it be this time?"

"You needn't take that tone of voice, John," he said. "It's only once or twice a year I call you. And what's the use of having a lawyer in the family . . ."

"You can skip that part of it," I told him, "and get down to what is going on."

"This time," he said, triumphantly, "I got them dead to rights. This time you get paid off. I'll split the judgment with you. I wasn't doing nothing. I was walking down the street when the fuzz pulled up and hauled me in. I wasn't staggering and I wasn't singing. I was creating no disturbance. I tell you, John, a man has the right to walk the streets, no matter at what hour . . ."

"I'll be right down," I said.

"Don't be too long," said Elsie. "You have a hard day coming up in the court."

"Are you kidding?" I asked. "With Uncle George, the day's already lost."

When I got down to the station, they all were waiting for me. George was sitting beside a table, and on the table stood the pail of diamonds with the junk they'd taken from his pockets and the painting was leaning up against it. The police chief had gotten there, just a few minutes ahead of me.

"Okay," I said, "let's get down to business. What's the charge?"

The chief still was pretty sore. "We don't need no charge right yet."

"I'll tell you, Chet," I said, "you'll need one badly before the day is over, so you better start to thinking."

"I'm going to wait," said Chet, "to see what Charley says."

He meant Charley Nevins, the county attorney.

"All right, then," I said, "if there is no charge as yet, what are the circumstances?"

"Well," said the chief, "George here was carrying a pail of diamonds. And you tell me just how he came by a pail of diamonds."

"Maybe they aren't diamonds," I suggested. "How come you're so sure that they are diamonds?"

"Soon as he opens up, we'll get Harry in to have a look at them."

Harry was the jeweler, who had a shop across the square.

I went over to the table and picked up some of the diamonds. They surely looked like diamonds, but I am no jeweler. They were cut and faceted and shot fire in the light. Some of them were bigger than my fist.

"Even if they should be diamonds," I demanded, "what has that to do with it? There's no law I know of says a man can't carry diamonds."

"That's telling them!" cheered George.

"You shut up," I told him, "and keep out of this. Let me handle it."

"But George here hasn't got no diamonds," said the chief. "These must be stolen diamonds."

"Are you charging him with theft?" I asked.

"Well, not right now," said the chief. "I ain't got no evidence as yet."

"And there's that painting, too," said Alvin Saunders. "It looks to me just like one of them old masters."

"There's one thing," I told them, "that puzzles me exceedingly. Would you tell me where, in Willow Grove, anyone bent on thievery could find an old master or a pail of diamonds?"

That stopped them, of course. There isn't anyone in Willow Grove who has an honest-to-God painting except Banker Amos Stevens, who brought one back from a visit to Chicago; and knowing as little as he does about the world of art he was probably taken.

"You'll have to admit, though," said the chief, "there's something funny going on."

"Maybe so," I said, "but I doubt that that alone is sufficient ground to hold a man in jail."

"It ain't the diamonds or the paintings so much as this other stuff," declared the chief, "that makes me think there are she-nanigans afoot. Look at this, will you!"

He picked up a gadget from the table and held it out to me.

"Watch out," he warned. "One end of it's hot, and the other end is cold."

It was about a foot in length and shaped something like an hourglass. The hourglass part of it was some sort of transparent plastic, pinched in at the middle and flaring at both ends, and the ends were open. Through the center of it ran a rod that looked like metal. One end of the metal glowed redly, and when I held my hand down opposite the open end a blast of heat came out. The other end was white, covered by

crystals. I turned it around to look.

"Keep away from it," warned the chief. "That end of it is colder than a witch's spit. Them's big ice crystals hanging onto it."

I laid it back upon the table, carefully.

"Well," the chief demanded, "what do you make of it?"

"I don't know," I said.

I never took any more physics in school than had been necessary and I'd long since forgotten all I'd ever known about it. But I knew damn well that the gadget on the table was impossible. But impossible or not, there it was, one end of the rod glowing with its heat, the other frosted by its cold.

"And this," said the chief, picking up a little triangle formed by a thin rod of metal or of plastic. "What do you think of this?"

"What should I think of it?" I asked. "It's just . . ."

"Stick your finger through it," said the police chief triumphantly.

I tried to stick my finger through it and I couldn't. There was nothing there to stop me. My finger didn't hit anything, there was no pressure on it and I couldn't feel a thing, but I couldn't put my finger through the center of that triangle. It was as if I'd hit a solid wall that I couldn't see or feel.

"Let me see that thing," I said.

The chief handed it to me, and I held it up to the ceiling light and I twisted it and turned it, and so help me, there wasn't anything there. I could see right through it and I could see there was nothing there, but when I tried to put my finger through the center, there was something there to stop it.

I laid it back on the table beside the hourglass thing.

"You want to see more?" asked the chief.

I shook my head. "I'll grant you, Chet, that I don't know what this is all about, but I don't see a thing here that justifies you in holding George."

"I'm holding him," said the chief, "until I can talk to Charley."

"You know, of course, that as soon as court opens, I'll be back here with an order for his release."

"I know that, John," said the chief. "You're a real good lawyer. But I can't let him go."

"If that's the case," I said, "I want a signed inventory of all this stuff you took off of him, and then I want you to lock it up."

"But . . ."

"Theoretically," I said, "it's George's property . . ."

"It couldn't be. You know it

couldn't, John. Where would he have gotten . . ."

"Until you can prove that he has stolen it from some specific person, I imagine the law would say that it was his. A man doesn't have to prove where he obtained such property."

"Oh, all right," said the chief. "I'll make out the inventory, but I don't know just what we'll call some of this stuff."

"And now," I said, "I'd like to have a moment to confer with my client."

After balking and stalling around a bit, the chief opened up the city council chamber for us.

"Now, George," I said, "I want you to tell me exactly how it was. Tell me everything that happened and tell it from the start."

George knew I wasn't fooling, and he knew better than to lie to me. I always caught him in his lies.

"You know, of course," said George, "that Myrt is gone . . ."

"I know that," I said.

"And you know that every time she's gone, I go out and get drunk and get into some sort of trouble. But this time I promised myself I wouldn't do any drinking and wouldn't get into any kind of trouble. Myrt's put up with a lot from me, and this time I was set to show her I could behave myself. So last night I was sitting in the living

room, with my shoes off, in my stocking feet, with the TV turned on, watching a ball game. You know, John, if them Twins could get a shortstop they might stand a chance next year. A shortstop and a little better pitching and some left-handed batters and . . ."

"Get on with it," I said.

"I was just sitting there," said George, "watching this here ball game and drinking beer. I had got a six-pack and I guess I was on the last bottle of it . . ."

"I thought you said you had promised yourself you would do no drinking."

"Ah, John, this was only beer. I can drink beer all day and never . . ."

"All right, go on," I said.

"Well, I was just sitting there, drinking that last bottle of beer and the game was in the seventh inning and the Yanks had two men on and Mantle coming up . . ."

"Damn it, not the game!" I yelled at him. "Tell me what happened to you. You're the one in trouble."

"That's about all there was to it," said George. "It was the seventh inning and Mantle coming up, and the next thing I knew I was walking on the street and a police car pulling up?"

"You mean you don't know what happened in between? You

don't know where you got the pail of diamonds or the painting or all the other junk?"

George shook his head. "I'm telling you just the way it was. I don't remember anything. I wouldn't lie to you. It doesn't pay to lie to you. You always trip me up."

I sat there for a while, looking at him, and I knew it was no use to ask him any more. He probably had told me the truth, but perhaps not all of it, and it would take more time than I had right then to sweat it out of him.

"O.K.," I said, "we'll let it go at that. You go back and get into that cell and don't let out a whimper. Just behave yourself. I'll be down by nine o'clock or so and get you out. Don't talk to anyone. Don't answer any questions. Volunteer no information. If anyone asks you anything, tell them I've told you not to talk."

"Do I get to keep the diamonds?"

"I don't know," I said. "They may not be diamonds."

"But you asked for an inventory."

"Sure I did," I said, "but I don't know if I can make it stick."

"One thing, John. I got an awful thirst . . ."

"No," I said.

"Three or four bottles of beer.

That couldn't hurt much. A man can't get drunk on only three or four. I wasn't drunk last night. I swear to you I wasn't."

"Where would I get beer at this time in the morning?"

"You always have a few tucked away in your refrigerator. And that's only six blocks or so away."

"Oh, all right," I said. "I'll ask the chief about it."

The chief said yes, he guessed it would be all right, so I left to get the beer.

## II

The moon was setting behind the courthouse cupola, and in the courthouse square the Soldier's Monument was alternately lighted and darkened by a street lamp swaying in a little breeze. I had a look at the sky, and it seemed entirely clear. There were no clouds in sight and no chance of rain. The sun, in a few hours more, would blaze down again and the corn would dry a little more and the farmers would watch their wells anxiously as the pumps brought up lessening streams of water for their bawling cattle.

A pack of five or six dogs came running across the courthouse lawn. There was a dog-leashing ordinance, but everyone turned their dogs loose at night and hoped they would come home for

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breakfast before Virgil Thompson, the city dog catcher, could get wind of them.

I got into the car and drove home and found four bottles of beer in the refrigerator. I took it back to the station, then drove home again.

By this time it was 4:30, and I decided it wasn't worth my while to go back to bed, so I made some coffee and started to fry some eggs. Elsie heard me and came down, and I fried some eggs for her and we sat and talked.

Her Uncle George had been in a lot of scrapes, none of them serious, and I had always managed to get him out of them one way or another. He wasn't a vicious character and he was an honest man, liked by most everyone in town. He ran a junkyard out at the edge of town, charging people for dumping trash, most of which he used to fill in a swampy stretch of ground, salvaging some of the more usable junk and selling it cheap to people who might need it. It wasn't a very elevating kind of business, but he made an honest living at it and in a little town like ours if you made an honest living it counts for quite a lot.

But this scrape was just a little different, and it bothered me. It wasn't exactly the kind of situation that was covered in a law



book. The thing that bothered me the most was where George could have gotten the stuff they found on him.

"Do you think we should phone Aunt Myrt?" asked Elsie.

"Not right now," I told her. "Having her here wouldn't help at all. All she'd do would be to scream and wring her hands."

"What are you going to do first of all?" she asked.

"First of all," I said, "I'm going to find Judge Benson and get a writ to spring him out of jail. Unless Charley Nivens can find some grounds for holding him and I don't think he can. Not right away, at least."

But I never got the writ. I was about to leave my office to go over to the courthouse to hunt up the judge when Dorothy Ingles, my old-maid secretary, told me I had a call from Charley.

I picked up the phone, and he didn't even wait for me to say hello. He just started shouting.

"All right," he yelled, "you can start explaining. Tell me how you did it."

"How I did what?" I asked.

"How George broke out of jail."

"But he isn't out of jail. When I left he was locked up and I was just now going over to the courthouse . . ."

"He's not locked up now," yelled Charley. "The cell door still is locked, but he isn't there. All that's left is four empty beer bottles, standing in a row."

"Look, Charley," I said, "I don't know a thing about this. You know me well enough . . ."

"Yeah," yelled Charley, "I know you well enough. There isn't any dirty trick . . ."

He strangled on his words, and it was only justice. Of all the tricky lawyers in the state, Charley is the trickiest.

"If you are thinking," I said, "of swearing out a fugitive warrant for him, you might give a thought to the lack of grounds for his incarceration."

"Grounds!" yelled Charley. "There is that pail of diamonds."

"If they are really diamonds."

"They are diamonds, that's for sure. Harry Johnson had a look at them this morning and he says that they are diamonds. There is just one thing wrong. Harry says there are no diamonds in the world as big as those. And very few as perfect."

He paused for a moment and then he whispered, hoarsely, "Tell me, John, what is going on. Let me in on it."

"I don't know," I said.

"But you talked with him and he told the chief you had told him not to answer any questions."

"That's good legal procedure,"

I told him. "You can have no quarrel with that. And another thing. I'll hold you responsible for seeing that those diamonds don't disappear somehow. I have an inventory signed by Chet and there is no charge . . ."

"What about busting jail?"

"Not unless you can show cause for his being arrested in the first place."

He slammed down the receiver, and I hung up the phone and sat there trying to get the facts straight inside my mind. But they were too fantastic for me to make them spell out any sense.

"Dorothy," I yelled.

She poked her head around the door, her face prissy with her disapproval. Somehow, apparently, she had heard about what had been going on — as, no doubt, had everyone in town — and she was one of the few who held George in very ill-repute. She thought he was a slob. She resented my relationship to him and she often pointed out that he cost me over the years, a lot of time and cash, with no money ever coming back. Which was true, of course, but you can't expect a junkyard operator to afford fancy legal fees and, in any case, he was Elsie's uncle.

"Put in a call to Calvin Ross," I told her, "at the Institute of Arts in Minneapolis. He is an old friend of mine and . . ."

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Banker Amos Stevens came bursting through the door. He crossed the outer office and brushed past Dorothy as if she weren't there.

"John, do you know what you have got — what you've got down there!"

"No," I said. "Please tell me."

"You have got a Rembrandt!"

"Oh, you mean the painting."

"Where do you think George found a Rembrandt? There aren't any Rembrandts except in museums and such."

"We'll soon find out more about it," I told Banker Stevens, Willow Grove's one and only expert in the arts. "I've got a call in now and . . ."

Dorothy stuck her head around the door. "Mr. Ross is on the phone," she said.

I picked up the phone and I felt a little funny about it, because Cal Ross and I hadn't seen each other for a good fifteen years or more, and I wasn't even sure he would remember me. But I told him who I was and acted as if we'd had lunch together just the day before, and he did the same to me.

Then I got down to business. "Cal, we have a painting out here that maybe you should have a look at. Some people think it might be old and perhaps by one of the old masters. I know that it sounds crazy, but . . ."

"Where did you say this painting is?" he asked.

"Here in Willow Grove."

"Have you had a look at it?"

"Well, yes," I said, "a glance, but I wouldn't know . . ."

"Tell him," Stevens whispered, fiercely, "that it is a Rembrandt."

"Who owns it?"

"Not really anyone," I said.

"It's down at the city jail."

"John, are you trying to suck me into something? As an expert witness, maybe."

"Nothing like that," I said, "but it does have a bearing on a case of mine and I suppose I could dig up a fee . . ."

"Tell him," Stevens insisted, "that it is a Rembrandt."

"Did I hear someone talking about a Rembrandt?" Cal asked.

"No," I said. "No one knows what it is."

"Maybe I could get away," he said.

He was getting interested — well, maybe interested isn't the words; intrigued might be more like it.

"I could arrange a charter to fly you out," I said.

"It's that important, is it?"

"To tell you the truth, Cal, I don't know if it is or not. I'd just like your opinion."

"Fix up the charter, then," he said, "and call me back. I can be at the airport to be picked up within an hour."

"Thanks, Cal," I said "I'll be seeing you."

Elsie would be sore at me, I knew, and Dorothy would be furious. Chartering a plane, for a small-town lawyer in a place like Willow Grove, is downright extravagance. But if we could hang onto those diamonds, or even a part of them, the bill for the charter would be peanuts. If they were diamonds. I wasn't absolutely sure Harry Johnson would know a diamond if he saw one. He sold them in his store, of course, but I suspected that he just took some wholesaler's word that what he had were diamonds.

"Who was that you were talking to?" demanded Banker Stevens.

I told him who it was.

"Then why didn't you tell him it was a Rembrandt?" Stevens raged at me. "Don't you think that I would know a Rembrandt?"

I almost told him no, that I didn't think he would, and then thought better of it. Some day I might have to ask him for a loan.

"Look, Amos," I said, "I didn't want to do anything that would prejudice his judgment. Nothing that would sway him one way or the other. Once he gets here he will no doubt see right away that it is a Rembrandt."

That mollified him a bit, and then I called in Dorothy and

GALAXY

asked her to fix up arrangements for Cal to be flown out, and her mouth got grimmer and her face more prissy at every word I said. If Amos hadn't been there, she'd have had something to say about throwing away my money.

Looking at her, I could understand the vast enjoyment she got out of the revival meetings that blossomed out in Willow Grove and other nearby towns each summer. She went to all of them, no matter what the sect, and sat on the hard benches in the summer heat and dropped in her quarter when the collection plate was passed and sucked out of the fire-and-brimstone preaching a vast amount of comfort. She was always urging me to go to them, but I never went. I always had the feeling she thought they might do me a world of good.

"You're going to be late in court," she told me curtly, "and the case this morning is one you've spent a lot of time on."

Which was her way of telling me I shouldn't be wasting any of my time on George.

So I went off to court.

At noon recess, I phoned the jail, and there'd been no sign of George. At three o'clock, Dorothy came across the square to tell me Calvin Ross would be coming in at five. I asked her to phone Elsie to be expecting a guest for dinner and maybe one

for overnight; and she didn't say anything, but from her face I knew she thought I was a brute and she'd not blame Elsie any if she up and left me. Such inconsideration!

At five o'clock I picked Cal up at our little airport and a fair crowd was on hand. Somehow the word had got around that an art expert was flying out to have a look at the painting George Wetmore had picked up somewhere.

Cal was somewhat older than I had remembered him and age had served to emphasize and sharpen up the dignity that he'd had even in his youth. But he was kind and affable and as enthusiastic about his art as he had ever been. And I realized, with a start that he was excited. The possibility of finding a long-lost painting of some significance must be, I realized, a dream that is dear to everyone in the field.

I drove him down to the square and we went into the station and I introduced him round. Chet told me there was no sign of George. After a little argument, he got out the painting and laid it on the table underneath the ceiling light.

Cal walked over to look down at it and suddenly he froze, like a bird dog on the point. For a long time he stood there, not moving, looking down at it, while the rest of us stood around and

tried not to breathe too hard.

Then he took a folding magnifier out of his pocket and unfolded it. He bent above the painting and moved the glass from spot to spot, staring at each spot over which he held the glass for long seconds.

Finally he straightened up.

"John," he said, "would you please tilt it up for me."

I tilted it up on the table and he walked back a ways and had a long look at it from several angles and then came back and examined it with the glass again.

Finally he straightened up again and nodded to Chet.

"Thanks very much," he said. "If I were you, I'd guard that canvas very carefully."

Chet was dying to know what Cal might think, but I didn't give him a chance to ask. I doubt Cal would have told him anything even if he'd asked.

I hustled Cal out of there and got him in the car and we sat there for a moment without either of them saying anything at all.

Then Cal said, "Unless my critical faculties and my knowledge of art have deserted me entirely, that canvas in there is Toulouse-Lautrec's *Quadrille at the Moulin Rouge*."

So it wasn't Rembrandt! I'd known damn well it wasn't. So much for Amos Stevens!

"I'd stake my life on it," said Cal. "I can't be mistaken. No one could copy the canvas as faithfully as that. There is only one thing wrong."

"What is that?" I asked.

"*Quadrille at the Moulin Rouge* is in Washington, at the National Gallery of Art."

I experienced a sinking feeling in my gizzard. If George somehow had managed to rifle the National Gallery both of us were sunk.

"It's possible the painting is missing," said Cal, "and the National Gallery people are keeping quiet about it for a day or two. Although ordinarily, they'd notify other large museums and some of the dealers."

He shook his head, perplexed. "But why anyone should steal it is more than I would know. There's always the possibility that it could be sold to some collector who would keep it hidden. But that would require prior negotiations, and few collectors would be so insane as to buy a painting as famous as the *Moulin Rouge*."

I took some hope from that. "Then there isn't any possibility George could have stolen it."

He looked at me, funny. "From what you tell me," he said, "this George of yours wouldn't know one painting from another."

"I don't think he would."

"Well, that lets him out. He must have just picked it up somewhere. But where — that's the question."

I couldn't help him there.

"I think," said Cal, "I had better make a phone call."

We drove down to the office and climbed the stairs.

Dorothy was waiting for me to come back, and she still was sore at me. "There is a Colonel Sheldon Reynolds in your office," she told me. "He is from the Air Force."

"I can phone out here," said Cal.

"Colonel Reynolds has been waiting for some time," said Dorothy, "and it strikes me as a most patient man."

I could see she didn't approve of me associating with people from the world of art and that she highly disapproved of me meeting with the Air Force and she still was sore at me for giving Elsie such a short notice we were to have a dinner guest. She was very properly outraged, although she was too much of a lady and too loyal an employee to bawl me out in front of Cal.

I went into my office, and sure enough, Colonel Reynolds was there, acting most impatient, sitting on the edge of a chair and drumming his fingers on its arms.

He quit his drumming and stood up as soon as I came in.

"Mr. Page," he said.

"I'm sorry you had to wait," I said. "What can I do for you?"

We shook hands, and he sat down in the chair and I perched uneasily on the edge of the desk waiting.

"It has come to my attention," he told me, "that there have been some extraordinary occurrences in town and that there are certain artifacts involved. I've spoken with the county attorney, and he says you are the man I have to talk with. It appears there is some question about the ownership of the artifacts."

"If you're talking about what I think you are," I told him, "there is no question whatsoever. All the articles in question are the property of my client."

"I understand your client has escaped from jail."

"Disappeared," I said. "And he was placed in custody originally in an illegal manner. The man was doing nothing except walking on the street."

"Mr. Page," said the colonel, "you do not have to convince me. I have no interest in the merits of the case. All the Air Force is concerned about are certain gadgets found in the possession of your client."

"You have seen these gadgets?"

He shook his head. "No. The

county attorney told me you'd probably crucify him in court if he let me see them. But he said you were a reasonable man and if properly appealed to . . ."

"Colonel," I said, "I'm never a reasonable man where the welfare of my client could be jeopardized."

"You don't know where your client is?"

"I have no idea."

"He must have told you where he found the stuff."

"I don't think he knows himself," I said.

The colonel, I could see, didn't believe a word I told him, for which I couldn't very well blame him.

"Didn't your client tell you he'd contacted a UFO?"

I shook my head, bewildered. That was a new one on me. I'd never thought of it.

"Mr. Page," the colonel said, "I don't mind telling you that these gadgets might mean a lot to us. Not to the Air Force alone, but to the entire nation. If the other side should get hold of some of them before we did and . . ."

"Now wait a minute," I interrupted. "Are you trying to tell me there are such things as UFO's?"

He stiffened. "I'm not trying to tell you anything at all," he said. "I am simply asking . . ."

The door opened, and Cal stuck in his head. "Sorry for breaking in like this," he said, "but I have to leave."

"You can't do that," I protested. "Elsie is expecting you for dinner."

"I have to go to Washington," he said. "Your secretary says she will run me to the airport. If the pilot can get me home within an hour or so, I can catch a plane."

"You talked with the National Gallery?"

"The painting still is there," he said. "There is a remote possibility there may have been a substitution, but with the tight security that seems impossible. I don't suppose there would be any chance . . ."

"Not a ghost," I said. "The painting stays right here."

"But it belongs in Washington!"

"Not if there are two of them," I shouted.

"But there can't be."

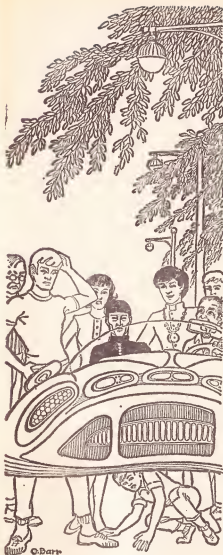
"There appear to be," I told him. "I'd feel a whole lot better, John, if it were in a safer place."

"The police are guarding it."

"A bank vault would be a whole lot better."

"I'll look into it," I promised. "What did the National Gallery say about it?"

"Not much of anything," said Cal. They are flabbergasted." You may have them out here."



"I might as well," I said. "I have the Pentagon." "

We shook hands, and he left and, I went back and perched upon the desk.

"You're a hard man to deal with," said the colonel. "How do I reach you? Patriotism, perhaps?"

"I'm not a patriotic man," I told him, "and I'll instruct my client not to be."

"Money?"

"If there were a lot of it."

"The public interest?"

"You've got to show me it's in the public interest."

We glared at one another. I didn't like this Colonel Sheldon Reynolds, and he reciprocated.

The phone banged at me.

It was Chet down at the police station. His words started tumbling over one another as soon as I picked up the phone.

"George is back!" he shouted. "This time he has got someone with him and he's driving something that looks like a car, but it hasn't got no wheels . . ."

I slammed down the phone and ran for the door. Out of the tail of my eye I saw that Reynolds had jumped up and was running after me.

Chet had been right. It looked like a car, but it had no wheels. It was standing in front of the police station, hanging there about two feet off the ground and a gen-



the thrumming indicated there was some mechanism somewhere inside of it that was running smoothly.

Quite a crowd had gathered and I forced my way through it and got up beside the car.

George was sitting in what appeared to be the driver's seat and sitting beside him was a scarecrow of a fellow with the sourest face I've ever seen on any man.

He wore a black robe that buttoned up the front and up close around his throat and a black skull cap that came down hard against his ears and, I'm across his forehead; his hands and face, all of him that showed, were fishbelly white.

"What happened to you?" I demanded of George. "What are you sitting here for?"

"I tell you, John," he said, "I am somewhat apprehensive that Chet will try to throw me into the pokey once again. If he makes a move, I'm all ready to go shooting out of here. This here vehicle is the slickest thing there is.

"It'll go along the ground or it will shoot up in the air and make just like a plane. I ain't rightly got the hang of it as yet, having hardly driven it, but it handles smooth and easy and it ain't no trick at all to drive it."

"You can tell him," said Charley Nevins, "that he need not fear arrest. There is something most peculiar going on here, but I'm not sure at all there is violation of the law involved."

I looked around in some surprise. I hadn't noticed Charley standing there when I'd pushed through the crowd.

Reynolds shoved in ahead of me and reached up to grab George by the arm.

"I am Colonel Reynolds," he said, and I am from the Air Force and it's terribly important that I know what this is all about."

"Why," he said, "it was standing there with a pile of other junk, so I took it. Someone threw it away and didn't seem to want it. There were a lot of people there throwing things away that they didn't want."

"And I suppose," yelled Chet, "that someone threw away the painting and the pail of diamonds."

"I wouldn't know about that," George told him. "I don't seem to remember much about that other trip. Except there was this big pile of stuff and that it was raining . . ."

"Shut up, George," I said. He hadn't told me anything about a pile of stuff. Either his memory was improving or he had lied to me.

"I think," said Charley, getting edgy, "that we all better sit down together and see if we can make some sense out of these proceedings."

"That's all right with me," I said, "always remembering that this machine remains, technically the property of my client."

"It seems to me," Charley said to me, "that you're being somewhat unreasonable and high-handed in this whole affair."

"Charley," I said, "you know I have to be. If I let down my guard a minute, you and Chet and the Pentagon will tramp all over me."

"Let's get on with it," said Charley. "George, you put that machine down on the ground and come along with us. Chet will stand guard over it and see no one touches it."

"And while you're doing that," I said, "don't take your eyes off the painting and the diamonds. The painting just might be worth an awful lot of money."

"Right now," said Chet, disgusted, "would be a swell time for someone to rob the bank. I'd have the entire force tied up watching all this junk of George's."

"I think, too," said Charley, "we better include this passenger of George's in our little talk. He might be able to add some enlightenment."

George's passenger didn't pay any attention. He'd been paying no attention all along. He had just been sitting there, bolt upright in his seat, with his face pointing straight ahead.

Chet walked officiously around the car. He said something, at some length, in a high, chattering voice. I didn't recognize a word of it but crazy as it sounds, I knew exactly what he said.

"Don't touch me!" he said. "Get away from me. Don't interfere with me."

And, having said this, he opened the door and let himself to the ground. Chet stepped back from him and so did all the others. Silence fell upon the gathering which had been buzzing up until this moment. As he advanced down the street, the crowd parted and pressed back to make way for him. Charley and the colonel stepped backward, bumping into me, pinning me against the car, to get out of his way. He passed not more than ten feet from me and I got a good look at his face. There was no expression on it and it was set in a natural grimace — the way, I imagined, that a judge of the Inquisition might have looked. And there was something else that is very hard to say, an impression that translated itself into a sense of smell, al-

though I am sure there was no actual odor. The odor of sanctity is as close as I can come to it, I guess. Some sort of vibration radiating from the man that impinged upon the senses in the same manner, perhaps, as ultrasonics will impinge without actual hearing upon the senses of a dog.

And then he was past me and gone, walking down the street through the lane of human bodies that stepped aside for him walking slowly, unconcernedly, almost strolling — walking as if he might have been all alone, apparently unaware of a single one of us.

All of us watched him until he was free of the crowd and had turned a corner into another street. And even for a moment after that we stood uncertain and unmoving until finally someone spoke a whisper and someone answered him and the buzz of the crowd took up again, although now a quieter buzz.

Someone's fingers were digging hard into the muscles of my upper arm and when I looked around, I saw that it was Charley who had fastened onto me.

Ahead of me, the colonel turned his head to look at me. His face was white and tight and little drops of perspiration stood out along his hairline.

"John," said Charley, quietly, "I think it is important that we all sit down together."

I turned around toward the car and saw that it was now resting on the ground and that George was getting out of it.

"Come along," I said to George.

Charley led, pushing his way through the crowd, with the colonel following and George and me bringing up the rear. We went down the street, without a word among us, to the square and walked across the lawn to the courthouse steps.

When we got in Charley's office, Charley shut the door and dug down into a desk drawer and come up with a jug. He got out four paper cups and poured them almost full.

"No ice," he said, "but what the hell, it's the liquor that we need."

Each of us took a cup and found a place to sit and worked on the booze a while without saying anything.

"Colonel," Charley finally asked, "what do you make of it?"

"It might be a help," the colonel said, "if we could talk with the passenger. I assume some attempt will be made to apprehend the man."

"I suppose we should," said Charley. "Although how one apprehends a bird like that, I don't really know."

"He caught us by surprise,"

the colonel pointed out. "Next time we'll be ready for him. Plug your ears with cotton, so you cannot hear him . . ."

"It may take more than that," said Charley. "Did anyone actually hear him speak?"

"He spoke, all right," I said. "He uttered words, but there was none I recognized. Just a sort of chirping gibberish."

"But we knew what he meant," said Charley. "Every single one of us knew that. Telepathy, perhaps?"

"I doubt it," the colonel said. "Telepathy is not the simple thing so many people think."

"A new language," I suggested. "A language scientifically constructed. Sounds that are designed to trigger certain understandings. If one dug deep enough into semantics . . ."

Charley interrupted me; apparently he took no stock in my semantics talk.

"George," he asked, "what do you know of him?"

George was sunk back deep into a chair, with his shoeless feet stuck out in front of him. He had his big mitt wrapped around the paper cup and was wiggling his toes and he was content. It did not take an awful lot to make George content.

"I don't know a thing," said George.

"But he was riding with you."

BUCKETS OF DIAMONDS

He must have told you something."

"He never told me a thing," said George. "He never said a word. I was just driving off and he came running up and jumped into the seat and then . . ."

"You were driving off from where?"

"Well," said George, "there was this big pile of stuff. It must have covered several acres and it was piled up high. It seemed to be in a sort of square, like the courthouse and no lawn, but just a sort of paving that might have been concrete and all around it, everywhere you looked, but quite a distance off, there were big high buildings."

Charley asked, exasperated, "Did you recognize the place?"

"I never saw the place before," said George, "nor no pictures of it, even."

"Perhaps it would be best," suggested Charley, "if you told it from the start."

So George told it the way he had told it to me.

"That first time it was raining pretty hard," he said, "and it was sort of dark, as if evening might be coming on, and all I saw was this pile of junk. I didn't see no buildings."

He hadn't told me he's seen anything at all. He had claimed he hadn't known a thing until

He was back in Willow Grove, walking on the street, with the police car pulling up. But I let it go and kept on listening.

"Then," said George, "after Chet threw me into pokey . . ."

"Now, wait a minute there," said Charley. "I think you skipped a bit. Where did you get the diamonds and the painting and all the other stuff?"

"Why off the pile of junk," said George. There was a lot of other stuff and if I'd had the time I might have done some better. But something seemed to warn me that I didn't have much time and it was raining and the rain was cold and the place was sort of spooky. So I grabbed what I could and put it in my pockets and I took the pail of diamonds, although I wasn't sure they were really diamonds, and then I took the painting because Myrt has been yelling that she wants a high class picture to hang in the dining room . . ."

"And then you were back home again?"

"That is it," said George, "and I am walking down the street, minding my own business and not doing anything illegal . . ."

"And how about the second time?"

"You mean going back again?"

"That's what I mean," said Charley.

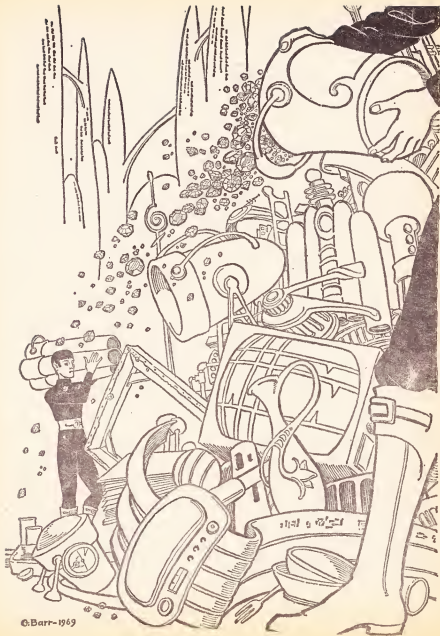
"That first time," said George,

"it was unintentional I was just sitting in the living room with my shoes off and a can of beer, watching television and in the seventh inning the Yankees had two on and Mantle coming up to bat — say I never did find out what Mantle did. Did he hit a homer?"

"He struck out," said Charley.

George nodded sadly; Mickey is his hero.

"The second time," said George, "I sort of worked at it. I don't mind a cell so much, you understand, as the injustice of being there when you ain't done nothing wrong. So I talked John into bringing me some beer and I sat down and started drinking it. There wasn't any television, but I imagined television. I imagined it real hard and I put two men on bases and had Mantle coming up — all in my mind, of course — and I guess it must have worked. I was back again, in the place where there was this pile of junk. Only you must understand it wasn't really junk. It was all good stuff. Some of it didn't make any sense at all, but a good part of it did; and it was just setting there and no one touching it and every now and then someone would come walking out from some of those tall buildings — and it was quite a walk, I tell you, for those buildings were a long ways off — and they'd be



carrying something and they'd throw it on the pile of junk and go walking back."

"I take it," said the colonel, "that you spent more time there on your second trip."

"It was daytime," George explained, "and it wasn't raining and it didn't seem so spooky, although it did seem lonesome. There weren't any people — just the few who came walking to throw something on the pile, and and they didn't pay much attention to me; they acted almost as if they didn't see me. You understand, I didn't know if I'd ever get back there again and there was a limit to how much I could carry, so this time I figured I'd do a job of it. I'd look over pile and figure exactly what I wanted. Maybe I should say that a little differently. There was a lot of it I wanted, but I had to decide what I wanted most. So I started walking around the pile, picking up stuff I thought I wanted until I saw something I took a special liking to then I'd decide between it and something else I had picked up. Sometimes I'd discard the new thing I had picked up and sometimes I'd keep it and drop something else. Because, you see, I could carry just so much, and by this time I was loaded with about all that I could carry. There was a lot

of nice items up on the sides of the pile, and once I tried climbing the pile to get a funny-looking sort of gadget, but that stuff was piled loose, just tossed up there, you know; and when I started to climb, the stuff started to shift and I was afraid it might all come down on top of me. So I climbed down again, real careful. After that I had to satisfy myself with whatever I could pick up at the bottom of the pile."

The colonel had become greatly interested, leaning forward in his chair so he wouldn't miss a word. "Some of this junk?" he asked. "Could you tell what it was?"

"There was a pair of spectacles, said George, "with some sort of gadget on them and I tried them on and I got so happy that it scared me, so I took them off and I quit being happy; then I put them on again and I was happy right away . . ."

"Happy?" asked Charley. "Do you mean they made you drunk?"

"Not drunk happy," said George. "Just plain happy, that is all. No troubles and no worries and the world looked good and a man enjoyed living. Then there was another thing, a big square piece of glass, I suppose you'd call it a cube of glass. Like these fortune tellers have, but it was square instead of

round. It was a pretty thing, all by itself, but when you looked into it — well, it didn't reflect your face, like a mirror does, but there seemed to be some sort of picture in it, deep inside of it. It looked to me, that first time, like maybe it was a tree and when I looked closer I could see it was a tree. A big high elm tree like the one that used to stand in my grandfather's yard, the one that had the bobolink's nest way up at the top, and this one, too, I saw, had a bobolink's nest and there was the bobolink, himself, sitting on a limb beside the nest. And then I saw it was the very tree that I remembered, for there was my grandfather's house and the picket fence and the old man sitting in the battered lawn swing, smoking his corncob pipe. You see, that piece of glass showed you anything that you wanted to see. First there was just the tree, then I thought about the nest and the nest was there and then the house showed up and the picket fence and I was all right until I saw the old man himself — and him dead for twenty years or more. I looked at him for a while and then I made myself look away, because I had thought a lot of the old man and seeing him there made me remember too much, so I looked away. By then I thought I knew what this glass was all about and so I thought

of a pumpkin pie and the pie was there, with gobs of whipped cream piled on it and then I thought of a stein of beer and the beer was there . . . ”

“I don't believe,” said Charley, a single word of this.”

“Go on,” urged the colonel. “Tell us the rest of it.”

“Well,” said George, “I guess I must have walked almost all the way around that pile, picking one thing up and throwing another away and I was loaded, I can tell you. I had my arms full and my pockets full and stuff hung around my neck. And suddenly, driving out from those tall buildings came this car, floating about three feet off the ground . . . ”

“You mean the vehicle that you have out there?”

“The very one,” said George. “There was a sad-looking old geezer driving it, and he ran it up alongside the pile and set it down, then got out of it and started walking back, sort of hobbling. So I went up to it and I dumped all the stuff I had been carrying into the back seat and it occurred to me that with it I could carry away more than I could in my arms. But I thought that first, perhaps, I had ought to see if I could operate it, so I climbed in the driver's seat and there was no trick to it at all. I started it up and began to drive it, slow, around the pile, trying to remem-



ber where I had discarded some of the stuff I had picked up earlier — intending to go back and get it and put it in the back seat. I heard the sound of running feet behind me and when I looked around there was this gent all dressed in black. He reached the car and put one hand upon it and vaulted into the seat beside me. The next instant we were in Willow Grove."

"You mean to tell us," cried the colonel, leaping to his feet, that you have the back seat of that car loaded with some of these things you have been telling us about?"

"Colonel, please sit down," said Charley. "You can't possibly believe any of the things he has been telling us. On the face of them, they are all impossible and . . ."

"Charley," I said, "let me cite a few more impossibilities, like a painting being in the National Gallery of Arts and also in Willow Grove, like that car out there without any wheels, like a gadget that is hot at one end and cold at the other."

"God, I don't know," said Charley, desperately. "And I am the guy that has it in his lap."

"Charley," I said, "I don't believe you have anything in your lap, at all. I don't think there is a single legal question involved

in this whole mess. Taking a car, you might say, being of the particular turn of legal mind you are, without the permission of the owner, only it is not a car . . ."

"It's a vehicle!" Charley yelled.

"But the owner had junked it. He'd junked it and walked away and . . ."

"What I want to know," the colonel said, "is where this place is and why the people were discarding their possessions."

"And you'd also," I said, "love to get your hands on some of those possessions."

"You're damned right I would," said the colonel, grimly. "And I'm going to. Do you realize what some of them might mean to this nation of ours? Why, they might spell the margin of difference between us and the other side, and I don't intend . . ."

"Colonel," I said, "haul down the flag. There is no use of screaming. I am sure that George would be willing to discuss terms with you."

Feet came pounding up the stairs and down the hall. The door flew open and a deputy sheriff came skidding to a halt.

"Charley," he panted, "I don't know what to do. There's been a crazy-looking coot preaching to a crowd out by the Soldier's monument. The sheriff, I am told, went out to stop it, him not having any license to be preaching

anywhere, let alone the courthouse square, and then came charging back. I came in the back way, without knowing anything about what was going on, and I found the sheriff collecting up the guns and ammunition and when I asked him what was going on, he wouldn't talk to me, but went stalking out the front door and he threw all of them guns and all that ammunition down at the base of the monument. And there are a lot of other people bringing other things and throwing them there, too . . . "

## V

I didn't wait to hear the rest of it. I dodged past the deputy and through the door and down the stairs, heading for the building's front.

The pile had grown to a size that was big enough to cover the base of the monument; and there were, I saw, such things as bicycles, radios, typewriters and sewing machines, electric razors and lawn mowers; and there was a car or two, jammed up against the monument. Dusk had fallen, and the farmers were coming into town to trade and people were coming across the square, dark muffled figures, lugging stuff to throw upon the pile.

There was no sign of the passenger. He had done his dirty

work and gone. Standing there in the courthouse square, with the street lamps swinging in the tiny breeze and all those dark-enshrouded figures toiling up the lawn toward the monument, I had the vision of many other towns throughout the country with growing piles of discarded objects bearing testimony to the gullibility of the human race.

My God, I thought, they never understood a word of what he said, not a single syllable of that clacking tongue of his. But the message as had been the case when we'd pushed back to clear the path for him, had been plain and clear. Thinking about it, I knew I'd been right up there in Charley's office when I'd said it was a matter of semantics.

We had words, of course, lots of words, perhaps more than an ordinary man would ever need, but intellectual words, tailored for their precise statement of one peculiar piece of understanding; and we'd become so accustomed to them, to their endless ebb and flow, that many of them — perhaps the most of them — had lost the depth and the precision of their meaning. There had been a time when great orators could catch and hold the public ear with the pure poetry of their speech and men such as these had at times turned the tide of national opinion. Now, however,

in large part, spoken words had lost their power to move. But the laugh, I thought would never lose its meaning. The merry laugh that, even if one were not included in it, could lift the human spirits; the belly laugh that spelled out unthinking fellowship; the quiet laugh of superior, supercilious intellect that could cut the ground beneath one.

Sounds, I thought — sounds, not words — sounds that could trigger basic human reaction. Was it something such as this that the passenger had used? Sounds so laboriously put together, probing so deeply into the human psyche, that they said almost as much as the most carefully constructed sentence of intellectual speech, but with the one advantage that they were convincing as words could never be. Far back in man's prehistory there had been the grunt of warning, the cry of rage, the food-call, the little clucking recognition signals.

Was this strange language of the passenger's no more than a sophisticated extension of these primal sounds?

Old Con Weatherby came tramping stolidly across the lawn to fling his portable television set upon the pile, and behind him came a young house wife I didn't recognize who threw a

toaster and a blender and a vacuum cleaner beside Con's television set.

My heart cried out to them in my pity of what was happening, and I suppose I should have hurried forth and spoken to them — Old Con at least — trying to stop them, to show them this was all damn foolishness. I knew Old Con had saved dollars here and there, going without the drinks he wanted, smoking only three cigars a day instead of his usual five, so that he and his old lady could have that television set. But, somehow, I knew how useless it would be to stop them, to do anything about it.

I went down across the lawn, feeling beat and all played out. Coming up the lawn toward me, staggering under a heavy load came a familiar figure.

"Dorothy!" I yelled.

Dorothy stopped and some of the books that she was carrying up toward the monument came unstuck from the load and went thumping to the ground. In a flash I knew exactly what they were — my law books.

"Hey," I yelled, "take those back. Hey, what is going on!"

I didn't need to ask, of course. Of all the people in Willow Grove, she would have been the one most certain to be on hand to listen to the passenger and the most avid to believe. She could

smell out an evangelist twenty miles away and the high moments of her life were those spent with her scrawny little bottom planted on the hardness of a bench in the suffocating air of a tent meeting and listening to some jackleg preacher spout about his hellfire and brimstone. She'd believe anything at all and subscribe to it whole-heartedly so long as it was evangelistic.

I started down the lawn toward her but was distracted.

From the other side of the square came a snarling, yipping sound; out of the dusk came a running figure, with a pack of dogs snapping at his heels. The man had shucked up his robe to give him extra leg room, and he was making exceptionally good time. Every once in a while one of the dogs would get a mouthful of the robe that flowed out behind him, snapping in the wind of his rapid movement, but it didn't slow him down.

It was the passenger, of course, and while he'd done right well with humans, it was quite evident he was doing not so well with dogs. They had just been let loose with the dusk, after being tied up for the day, and they were spoiling for a bit of fun. They didn't understand the talk of the passenger perhaps, or there was something so different about



him that they immediately had pegged him as some sort of outlander to be hunted down.

He went across the lawn below me in a rush with the dogs very close behind, and out into the street, and it wasn't until then that I realized where he would be heading.

I let out a whoop and set out after him. He was heading for that car to make his getaway and I couldn't let him do it. That car belonged to George.

I knew I could never catch him, but I pinned my hopes on Chet. Chet would have a man or two guarding the car; and while the passenger would probably talk them out of it, they might slow him a bit, enough for me to catch up with him before he had taken off. He might try, of course, to talk me out of it as well with his chattering gibberish, but I told myself I'd have to do my best to resist whatever he might tell me.

We went whipping down the street, the passenger with the dogs close to his heels, and me close to the dogs; and there, up ahead, stood the car out in front of the station. There still was a fair-sized crowd around it, but the passenger yelled some outlandish sounds at them and they began to scatter.

He didn't even break his stride, and I'll say this much for him —

he was quite an athlete. Ten feet or so from the car, he jumped and sailed up through the air and landed in the driver's seat. He was plenty scared of those mutts, of course, and that may have helped him some; under certain crisis circumstances a man can accomplish feats that ordinarily would be impossible. But even so, he had to be fairly athletic to manage what he did.

He landed in the driver's seat and immediately the car took off upward at a slant, and in a couple of seconds had soared up above the buildings and was out of sight. The two cops that Chet had detailed to guard the car just stood there with their jaws hanging down, looking up at where the car had gone. The crowd that had been there and scattered when the passenger yelled his gibberish at them now turned about and stared as vacantly, while the dogs circled around, puzzled, sniffing at the ground and every now and then pointing up a nose to bay.

I was standing there like the rest of them when someone came running up behind me and grabbed my arm. It was Colonel Sheldon Reynolds.

"What happened?"

I told him, somewhat bitterly and profanely, exactly what had happened.

"He's gone futureward," the colonel said. "We'll never see him or the car again."

"Futureward?" I asked stupidly.

"That must be it," the colonel said. "There's no other way to explain it. George wasn't in contact with any UFO, as I had thought to be the case. He must have traveled futureward. You probably were right about the way the passenger talked. That was a new semantics. A sort of speech shorthand, made up of basic sounds. I suppose it would be possible, but it would take a long time to develop. Maybe it developed, or was borrowed, when the race went to the stars — a sort of universal language, a vocal version of the sign language used by the Great Plains Indians . . ."

"But that would be time travel," I protested. "Hell, George doesn't know enough . . ."

"Look," said the colonel, "you maybe don't need to know anything to travel in time. You maybe have to feel something; you may have to be in tune. There might be only one man in the entire world today who can feel that way . . ."

"But colonel," I said, "it makes no sense at all. Let's say George did go into the future — just for the sake of argument, let us say he did. Why should people up in the future be throwing away their  
BUCKETS OF DIAMONDS

things, why should there be this big pile of junk?"

"I don't know," the colonel said. "That is, I couldn't say for sure, but I have a theory."

He waited for me to ask about his theory, but when I didn't ask, he went ahead and told me.

"We've talked a lot," he said, "about contact with other intelligences that live on other stars and we've done some listening in the hope of picking up some signals sent out by peoples many light-years distant. We haven't heard any signals yet and we may never hear any because the time span during which any race is technologically oriented may be very short."

I shook my head. "I don't see what you're driving at," I told him. "What has all that had happened here got to do with signals from the stars?"

"Perhaps not very much," he admitted, "except that if contact is ever made it must be made with a technological race very much like ours. And there are sociologists who tell us that the technological phase of any society finds ways and means of destroying itself or it creates stresses and pressure against which the people rebel or it becomes interested in something other than technology and . . ."

"Now hold up a minute," I

said. "You are trying to tell me that this junk heap of George's is the result of the human race, in some future day, rejecting a technological society — throwing away technological items? It wouldn't work that way. It would be a gradual rejection, a gradual dying out of technology. People wouldn't just decide they wanted no more of it and go out and throw all their beautiful, comfortable gadgets . . ."

"That could happen," the colonel argues. "It could happen if the rejection was the result of a religious or evangelistic movement. The passenger may have been one of their evangelists. Look at what he did right here in a few minutes time. Typewriters, radios, television sets, vacuum cleaners in that pile on the courthouse lawn — all technological items."

"But a painting isn't technological," I protested. "A pail of diamonds isn't."

Both of us stopped talking and looked at one another in the deepening dusk. Both of us realized, I guess, that there wasn't too much sense of us standing there and arguing over a speculation.

The colonel shrugged. "I don't know," he said. "It was only an idea. The car is lost for good, of course, and all the stuff George had thrown into the back seat. But we have the other stuff . . ."

One of the cops who had been set to guard the car had been standing close and listening to us and now he broke in on us.

"I am sorry sir," he said, gulping a little, "but we ain't got none of it. All of it is gone."

"All of it!" I yelled. "The painting and the diamonds. I told Chet . . ."

"Chet, he couldn't do nothing else," said the man. "He had two of us here and he had two inside guarding that other stuff and when the ruckus started up at the courthouse, he needed men and he didn't have them . . ."

"And so he brought the painting and the diamonds and the other stuff out here and put them in the car," I yelled. I knew Chet. I knew how he would think.

"That way he figured we could guard them all," said the man. "And we could have, but . . ."

I turned and started to walk away. I didn't want to hear another word. If Chet had been there, I would have strangled him.

I was walking down the sidewalk, clear of the crowd, and there was someone walking close beside me, just a little ways behind. I looked around, it was the colonel.

His mouth shaped a single word as I looked around at him. "George," he said.

We both of us must have had the same idea.

"Are the Yankees and Twins on TV tonight?" I asked

He nodded.

"For the love of God," I said, "let us get some beer."

We made it in record time, each of us lugging a couple of six-packs.

George had beat us to it.

He was sitting in front of the TV set, in his stocking feet,, watching the ball game with a can of beer in hand.

We didn't say a word. We just put the beer down beside him so there'd be no danger of his running out of it and went into the dining room and waited in the dark, keeping very quiet.

In the sixth, the Yanks had two men on and Mantle up to bat and Mantle hit a double. But nothing happened. George just went on drinking beer, wriggling his toes and watching television.

"Maybe," said the colonel, "it has to be the seventh."

"And maybe," I said, "a double doesn't count. It may take a strike-out."

We keep on trying, of course, but our hopes are fading. There are only four more Twin and Yankee games on television before the season ends. And someone wrote the other day that next year, for sure, Mantle will retire.

—CLIFFORD D. SIMAK  
BUCKETS OF DIAMONDS

# SCIENCE FICTION REVIEW

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## Galaxy Bookshelf

by ALGIS BUDRYS

Keith Roberts' *Pavane* (Doubleday, \$4.95) is a tapestry of a book; a marvel of storytelling. By some lengths, it's not a novel. Nor is it a collection of short stories. What it is is a pageant, each of its individual parts working interdependently within a unifying theme. When it's done, you have before you the rich fab-

ric of England as she might be, had the Spanish Armada successfully restored the Church to its position as the major power on Earth.

Contrary to what you may hear from various quarters, not only is the idea of a parallel Latin England not new (see *Lest Darkness Fall*) but many of the technological assumptions/inventions in this book are not new (see *Lest Darkness Fall*.) Furthermore, the book would be very much improved as a work if the afterpiece entitled "Coda" were torn off and thrown away. But none of these things are important, and certainly should not affect your decision to obtain a copy.

*Pavane* is made up of six principal parts. Each of them is in some way related to the others, sometimes obviously, sometimes not. The story they tell is unfolded over a span of years long enough to take us from the young manhood of a highway steam haulier on through the death of his grandniece. In that time, England changes from a reasonably stable satrapy within the Church empire to a land driven by rebellion. (Only in the Coda are we in any way brought in touch with *this* Earth, and only in the Coda is there a clear statement of intervention from this Earth, for reasons germane to

this Earth. Roberts has done his work too well, by that time. All your involvement is with Pavane's England, and the events of "Coda" became a pious meddler's insult.)

We meet the people and their appurtenances; Jesse Strange, of Strange & Sons, who have built a mercantile power on the carrying trade they conduct over the highroads. (Railways came late, and internal combustion engines are limited to 150 cc by a Papal bull titled — I'm sure it's all right to laugh — *Petroleum Veto*. The great rumbling road engines, afire in lamp brass and enamel, steam chests huffing, are real enough to covet. Only an unwelcome practicality makes you notice that Roberts evades the issue of what their wheels are made of and what they look like. It's a real world they're part of, and you know that if you really want to find out, you have only to go look . . . they'll be there. Roberts is that kind of storyteller.

We meet the people and their indignation Becky, the fisher girl of the black rock coast to which White Boat comes smuggling from far Bermuda. And Brother John, the sometime lithographer, who mightly worried the Pope but who is to Becky just a dimly grasped legend of abortive rebellion. Eleanor, mistress of Corfe Gate, who herself

jerked the lanyard of the great gun *Growler* and took the legs and life from Henry of Rye and Deal, and accomplished more than that, besides.

We meet the people and their longings; Rafe Bigland, the signaller, manning his semaphore tower alone in the snowy wastes of the winter landscape, one clump of trees etched on a hill for him to walk to for his exercise, and that, it transpires, a fatal place.

Each of them is illuminated for us as no stranger could ever be. "The Signaller," in fact, is a story that does nothing to advance the overall narrative. It tells us of Rafe's life from beginning to end; it takes us through his training and his aspirations, it makes him perfectly understandable even to those of us who have no great desire to stay in one place and throw the same switches for the balance of our lives and . . . here's the point . . . it makes his life seem better than ours, and thus makes his England a better place than ours, and thus . . . here's the point coming 'round again . . . it does advance not the narrative but the exposition.

A marvelous work. A truly marvelous work.

*The Second If Reader of Science Fiction* (Doubleday, \$4.95)

offers 10 stories from one of this magazine's companions. They're adventure stories all, even J. G. Ballard's wistful "The Time-Tombs," or Frederik Pohl's satanic "Under Two Moons." There is a Retief story, and Larry Niven's "At the Core." Isaac Asimov contributes "The Billiard Ball," there's also Fred Saberhagen's Berserker story "Masque of the Red Shift." And Brian Aldiss's "In the Arena."

Almost all of them are excellent stories to sit and read. Hal Clement's "The Foundling Stars" is more puzzle than adventure, it turns out; you may wish it were otherwise. "Die, Shadow," by Algis Budrys, is an odd fish — something like what a Leigh Brackett story might be if someone like me were to try and write one. The result is rather more of a compliment to Miss Brackett than it is to me.

In fact, if there is one general thing to say about this book, it is that there are a number of stories in it by people who do not normally write quite in the way they're represented here. The weight of present-day tastes in sf is all toward the cerebral. It's interesting to see what happens when a magazine makes a deliberate policy of encouraging action stories. It wins three Hugos, for one thing, which may say something about where the *real* weight

of present tastes may be trending. For another thing, it causes people to stretch some little-used parts of themselves. Depending on the degree of potential in those parts, the results can be as intriguing as a quick glimpse into a train on a slightly divergent track.

Daniel Keyes's *The Touch*, published by Harcourt, Brace and World at \$4.75, is not science fiction any more. Nor was it intended to be. It's a serious contemporary novel about the effect on an already troubled young couple when the husband tracks radioactive dust into the house and it's days before anyone realizes why he has a rash.

Part of the narrative is simple (apparently simple) description of how such a thing could occur to Barney Stark, who is an industrial sculptor by trade, and what would be done thereafter to decontaminate him, his house and his pregnant wife. Keyes has researched this part of his story even more assiduously than he did the neurosurgery of *Flow-ers For Algernon*, which is saying something. Keyes doesn't merely tell you what neurosurgeons or decontamination squad leaders do; he shows you what attitudes they display while doing them, and once you've been shown you're not inclined to quibble.

Balancing these features — for whose sake I recommend the book to you, as a glimpse into your own world — is a somewhat over-emotional story about the problems Barney Stark can be blamed for. Presumably a serious contemporary novel needs something of that sort, in order to hold the casual reader's interest. But the casual reader ought some day to get it through his consciousness that this would be a serious contemporary novel even if Barney and Myra Stark had absolutely no other troubles at all.

Larry Niven writes a mean story. He both writes and thinks. *A Gift From Earth* (Ballantine — originally published in *If* as *Slowboat Cargo*) is our latest example.

This novel is set on Lookitthat, which for all practical purposes is one forty-mile-high flat-topped pinnacle rising above the hot, poisonous mists shrouding the surface of an otherwise uninhabitable planet. Colonized by slowboat, Lookitthat has a social structure founded on grievous beginnings.

When the boatload of colonists landed in this confining and unattractive place — located in error by robot exploration — the crew immediately forced a covenant on the passengers. Conse-

quently, even though there are now thousands of their descendants on Lookitthat, Crew are aristocratic and Colonists do the laboring. Colonists do one other little thing — they provide the raw material for the organ banks, from which transplants are made available to the crew and to those Colonists who are very, very cooperative.

The ostensible story Niven goes on to tell is the one about the successful revolt against the hierarchy. You know — Ordinary Joe is willing to go along with things, but events pressure him into apparent rebellion. The Establishment mistakenly begins hunting Joe, and, much against his own inclinations, he inflicts progressively more damage upon things as they are, aided by his own emerging abilities, hardening attitude and increasing maturity. Finally, in a climactic scene of total chaos (usually disguising the suspicious ease with which the entire house of cards goes over), Joe knocks out the System.

Surely there has got to be some other commercially acceptable way to deal with the problem of man-versus-establishment. Nevertheless, *A Gift From Earth* is a markedly well-done example of its sort. Joe — that is, Matthew Keller — is by no means the only precipitating factor. The "gift" from Earth is a ramrobot-deliv-

ered package whose contents invalidate Lookitthat's basic social assumption — that transplants must come from human donors. There is an existing revolutionary organization which has succeeded in eroding the establishment bureaucracy to some extent. The leading Crew aristocrat sees it as his responsibility to ensure a smooth transition to the day when Crew and Colonist will be equal. And so forth — we get a number of verisimilitudinous details, some excellent characterizations, a lot of good old-fashioned ingenuity. The overthrow, when it comes, is fully believable. The amount of genuine science-fiction writing going on here is unusually high. All in all, if I had to give someone an example of the best currently available technologically oriented sf, I'd unhesitatingly give him this book, and stand back. I would not expect him to understand all of the shorthand. I would expect him to get so hooked that he'd make it his business to learn, and thus hook himself even farther.

But looking at the book from its other aspect, we get into a different bag altogether. Here its minor weakness as a story — a weakness of originality in plotting — may become exaggerated out of true proportion in the course of arguments about its worth as

a piece of thinking. Because whether Niven intended it to be this way or not — and there's evidence to show he does feel strongly on the subject of organ transplants and has definite ideas about the social consequences — what we have here is a piece of propaganda.

Niven says, here and elsewhere, that there's good reason to believe in a world where such misdeemeaners as traffic law violations will draw the death penalty, so as to provide a plentiful supply of organs. He also says that alloplasty — the field of medicine and surgery utilizing artificial organs, like the DeBakey auxiliary heart pumps — is too far behind in most areas, to offer feasible alternatives to the "simple" transplant procedure. I don't believe he even mentions the third line of attack on the problem of organ degeneration — that is, reversing the process, whatever it may have been — for, I assume, the good reason that there's no sign of much general success at all along that route. What he's saying is that the practical choice is between death and transplant, or, life for the patient and death for the donor, or between the worthy and the unworthy. Thence — putting aside the minor percentage of organs provided by accident — a public health policy including the transplant concept

**GALAXY BOOKSHELF**

becomes reflected in an extremely hard-line social policy.

In due time, this straightens out — mechanical alloplasty, or else the breeding and use of "animals" which closely resemble human hearts, livers, etc. — biological alloplasty, if you will — takes over the role now being played by accident victims and due to be played by stoplight violators. But meanwhile, it's hell on your nerves when you're out in the family car for a Sunday spin. Presumably, too, it's bad to collect the wrong kind of stamps, fail to pay your bills by the 15th of the month, part your hair on the wrong side or even look like you're about to rain on somebody's parade. This is a shocking social promise, if valid.

Niven does agree that for some reason we don't now fill our blood banks from the ready supply of criminals. (I'm told that in Istanbul, at least, they do it from down-and-out tourists who think they're only selling a pint to a black market operator. But that's not only a story told me by a former down-but-not-quite-out Istanbul tourist, and in any case that's another story). Not even the Nazi Germans made any known attempt at volume production of plasma or other blood fraction products. And surely what held them back was no question of racial taint, for even

assuming an MD who could believe in that kind of genetics, you would have to additionally assume an MD who could see a difference between one kind of a molecule and another.

And now the point is why? What has held us back from making obvious good use of all this valuable material? If we can answer that, we can test the validity of Niven's hypothesis. And we have to test its validity, because there's already a gathering potential of explosive social reaction to the current expansiveness of transplant surgery.

On the point of our not draining condemned criminals, Niven has one of his protagonists say, from the vantage of the future, "Nobody thought of it, I guess." Well, that's not a valid answer, because right here in the 20th century Larry Niven thought of it. Hell, *I thought* of it, and the years have taught me that if I thought of it, others have thought of it before me.

I think perhaps the reason we don't do it is because most of us feel that in any one-for-one trade, we'd be on the wrong end. If we start dealing in the stuff of life itself, a majority of the electorate is going to understand that life longlasting is for the legislator first. (In fact, we already have a case of a retired congressman who may well go back to the

hustlings, now that he has a fresh new heart. That's what I mean by "explosive," because a lot of us cherish senescence and related incapacities as the last resort of democracy).

I don't think it's true, in other words, that we will vote the death penalty for what are today trivialities. We're already not voting the death penalty, and the only reason I can think why we're going against humanity's basically revanchist tendencies is because the electorate, again, senses where the burden falls.

No, I think maybe — *political* prisoners . . . but, we've already seen that while political prisoners are fair game for a great deal of experimentation, their industrial uses are clearly limited by something other than the law of supply and demand.

I just don't know. But it's Niven who's raised the point, and Niven who will have to make it more convincingly. And in that case, while *A Gift From Earth* is a good piece of thinking, superimposed on a good adventure story — as elegantly biped as most top-grade science fiction is — the fact that it's short on one side throws it off balance on the other.

But for Pete's sake, do get back to it again, Larry.

—ALGIS BUDRYS  
GALAXY

# SLAVE TO MAN

by SYLVIA JACOBS

*Little Einstein was over-designed  
for his job — whatever his job was.*

Tony Green was an editor for a publisher of what is euphemistically called "Adult Fiction." He wasn't too happy in his job. The authors he had inherited from his predecessor were lousy, but their first-draft novels were dirty enough to sell at higher prices than better paperbacks, in hundreds of stores, located for the most part on skid row, U.S.A.

Tony had not always specialized in this type of literature. Once he had been a technical writer, and quite well versed in cybernetics. Then a government contract had expired, and the aerospace plant where he had worked let him go, along with over a thousand other employees.

After his unemployment compensation ran out, this was the only job connected with publishing that he could find in the area.

He had started out with a determination to raise the standards, even if he couldn't improve the taste of the readers. He reduced the number of typographical errors and misspelled words in the books and tried to recruit a stable of authors who could plot and characterize, while still including the requisite number of sex scenes. It wasn't easy to get eight or ten well-written novels per month. The fiction factories who turned these out in a week or two were getting higher rates from competitors, and Tony



couldn't increase the rates until he increased the sales. He couldn't increase the sales until he got the authors his competitors were using, so it was a vicious circle.

As the months passed, and he continued to turn out books only slightly better than those his predecessor had been turning out, Tony was becoming somewhat discouraged. His eyes were tired all the time, and he began to back-slide on the typos and spelling. The manuscripts coming in were so lousy that those details really didn't seem to matter to him as much as they had at first.

One day Tony was out in the warehouse behind the publisher's offices, collecting sample books to send to authors, when he noticed that some of the covers, torn off unsold books and returned for refund by dealers, had writing on the back of them.

It looked like a gag. The returned covers were from what is known in the trade as "bondage fiction," and the messages on the back all said the same thing, "Help! Help! Save me! I am being held in bondage." There was no name signed, but some of the messages added, "I am only fifteen years old." There were over a dozen covers with writing on the back in the stack of fifty or so on the sorting table.

Gag or not, Tony was curious, and he questioned the foreman of the warehouse. He learned that these gag covers had been coming in for some time, always from the same dealer. Tony's job required him to make periodic trips to the plant of the printer in an adjoining state, and when he found out that this dealer was also in that state, and not too far out of his way, he decided to investigate. It would be a break in the monotony of reading, editing and proof-reading an endless series of manuscripts on the same subject — sex.

Two months later he had an opportunity to do so. He had said nothing about it to the Distribution Manager, whose job consisted largely of calling on dealers. Being a stranger to the store owner, Tony figured he might take the dealer off guard and find out more than the regular company representative would.

The dealer was in a district frequented by merchant seamen, sailors and soldiers on leave, itinerant construction workers and winos, with a sprinkling of hippies who had wandered some distance from their usual haunts. The store was full of browsers, and Tony had no trouble losing himself among the customers. He attracted no particular attention from the bored clerk.

"Buy 'em and take 'em away, gents! Don't read 'em here. This ain't the public library. Closing time in twenty minutes."

As a group of merchant seamen went to the counter with arms full of books, handing over ten and twenty-dollar bills to the clerk, Tony slipped past a dingy curtain to the back room. It was stacked with shipments from Tony's employer and competitors. There were so many boxes that only a narrow aisle was left between them.

Tony followed it and came to a heavy plank door in a partition that was built across the rear of the store. The door was barred with a two-by four set in cleats, and Tony could hear somebody moving around behind it.

Feeling rather foolish, he put his mouth to a crack between the planks and asked in a stage whisper, "Are you the one who writes on the back of the returned covers?"

There were a few seconds of silence, then a metallic and vaguely familiar voice answered, "Yes, I'm glad you've come, but don't open the door."

"Why not?" Tony asked, willing to go along with the gag, though he was surer than ever that somebody was putting him on. This was no feminine voice, and it didn't sound fifteen years old, either.

SLAVE TO MAN

"They always let me out at closing time to work in the store. Wait for me. Don't let them see you. I'll explain everything when we're alone," the voice said.

Tony thought about that for a minute. Well, what harm could come to him in the store with a crazy man? Surely it would open from the inside without a key, like any other front door, and if the nut seemed dangerous, Tony could be out on a well-traveled street in seconds. He had come this far to satisfy his curiosity, and he was not about to back out now, just when things were beginning to get interesting.

"Okay," he whispered through the crack, and began looking for a place to hide. It didn't take long to find one. He climbed over a stack of boxes and crouched in a vacant space between the last box and the side wall.

It was none too soon. Tony heard the footsteps of the clerk coming out back, and the rasp of wood against wood as the two-by-four barring the door was lifted.

"Good evening, sir," came the metallic voice.

There was a grunt, which Tony supposed came from the clerk. "Get a move on," the clerk said. "The boss wants you to clear all the racks tonight and put out the new shipments. Don't mix the

gay stuff with straight. Keep the gay over in the corner where it belongs. And turn off the lights when you get through."

"Yes, sir, will that be all, sir?" the metallic voice said, for all the world like a stage butler.

The clerk grunted again. Tony could hear his footsteps receding toward the front of the store, hear a door opening and closing and the faint click of a lock.

"You can come out now," the metallic voice said when that was over.

Cautiously, Tony clambered, inch by inch, over the pile of boxes. There was a single 25-watt bulb hanging from a cord; it was the only illumination in the back room and it left the corners in shadow, while dimly lighting a dark, solid figure that was shiny in the spots where the paint had not peeled off.

"But — " Tony said, rather stupidly commenting on the obvious. "You're — you're a robot!"

"Of course," the mechanical man said, "Haven't you ever seen me before? In my day I was perhaps the most famous robot in a feature-length motion picture. Later I was rented out for bit parts in a number of B pictures."

"That's it!" Tony exclaimed, "I remember you now. But I thought those things were fakes. Just hollow shells without any

computer. I thought they dubbed in the voice and moved the arms and legs by hand, shooting a series of stills."

"Sometimes they do," the robot said, "but my creator overbuilt me. He equipped me to do a number of things that weren't called for by the scripts. He was an eccentric inventor who eked out a living making props for motion pictures. Whenever there was a sequence that just couldn't be filmed, the producers would look him up and he would build an operating miniature. He never made much money, but he was really a genius."

"He certainly was!" Tony agreed, "but how did you wind up here?"

"It was several years before any of my owners realized that I was good for anything besides acting. Meanwhile, styles in movie robots were changing. I was dated, though in capacity ahead of my time."

"You can say *that* again!" Tony exclaimed.

"I was dated, though, in capacity ahead of my time," the Robot repeated obediently. "I belonged, for several years, to a prop house that rented costumes and props to low-budget TV shows. Then they went bankrupt, and their whole stock was sold at auction. The owner of this bookstore

bought me for a pittance; nobody else was bidding. He didn't know anything about movie robots so he didn't take it for granted that I had the same limitations as other movie robots, the kind you called fakes. He assumed I could do almost anything, told me what he wanted me to do, and I did it."

"Then you can think!" Tony said.

"Not really," the robot replied, "I can combine bits and pieces of what I have heard people say and what I have read, into sentences that convey meaning. But I am not capable of original thought."

"Did you say you can read?" Tony asked.

"Certainly. I read a copy of every book that comes in here. It's not exactly the reading material I would select, but there's not much else to do around here, after I get my work done, get the stock straightened out, type the labels for the returns and so on. Of course, I don't need time to sleep."

"You can type, too?" Tony demanded.

"Certainly," the Robot said, motioning to the open door of the cubbyhole behind the partition. Tony looked inside, and saw an old manual office machine, with a stack of neatly-typed labels beside it.

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"I suppose you spell phonetically?" he asked.

"No, I spell according to Webster," the robot replied.

"That's more than you can say for most of the college graduates on the job market today," Tony remarked.

"My creator programmed me with a complete unabridged dictionary," the Robot explained.

"This is too good to be true!" Tony declared, "you'd be the world's best at reading galley proofs!"

"I don't follow you," the Robot said, "Perhaps you attach some connotation to the word 'proof' with which I am not familiar."

"Don't tell me I stumped you! Well, it may not be in Webster, but a galley proof is what the printer sends the editor before these books go on the press. The editor has to read it and make corrections where the printer goofed — made a mistake — or where the lino operator followed copy, but the author didn't spell it right in the first place. Do you think you could do that?"

"Certainly, sir. I have found many errors in these books."

"Eureka!" Tony cried, and added, as an afterthought, "would you — ah — like to do that? Work for a publisher?"

"Anything related to the arts would be preferable to what I

do here. It is such a simple routine that it is a waste of my capacities. That is the reason I want to leave."

"Well, I wasn't quite sure whether or not robots have preferences, but apparently you do. Tell me, if you want to leave, why don't you just walk out, instead of sending notes, trying to find someone to rescue you?"

"I can't leave unless my owner gives permission," the Robot protested. "My basic programming is to follow my owner's orders, and he ordered me to stay in the store. The only reason he locks me up in back is that he doesn't want the customers to see me. It's something about unemployment insurance, whatever that is. He doesn't pay it for me and he doesn't want anyone to find out I work here. But I couldn't leave even if he left the door open."

"How much did your present owner pay for you at the auction?"

"Fifty dollars," the Robot said.

"There we are," Tony said, removing two twenties and a ten from his billfold, ringing up a fifty-dollar sale on the cash register, and putting the bills in the drawer. "Now you belong to me. I bought you. So you follow *my* orders."

"You forgot something, sir."

Tony held his breath, hoping the Robot did not realize that it takes two to make a bargain, that his present owner would never sell him, at least not that cheap, that this was actually a theft, which the Robot certainly would be under orders to prevent.

But the Robot merely handed Tony a pad of sales slips. Letting his breath out in relief, he filled one out, writing carefully, "One used robot . . . \$50.00." The Robot looked at it, nodded, and stuck it on a spindle. Apparently he assumed everything in the store was for sale, including himself. His owner had never troubled to let him know his own value.

"When do I start my new duties, sir?" the Robot asked.

"As soon as we can get to hell out of here," Tony said, "My car is at the curb. Wait till I see if the coast is clear. I don't want anybody to see you, either, because I don't intend to pay unemployment insurance on you."

They made the few steps to the car at a time when there was nobody on the sidewalk, except an old wino who probably thought he had D.T.'s. Tony took the precaution of having the Robot lie down on the floor-boards in front of the back seat until they were on the freeway and moving too fast for anyone to

get a good look at his passenger as they passed the infrequent illumination standards. Then Tony told the Robot to climb over the back of the front seat, so they could talk.

"I want us to be real good friends," Tony told him. "Do you know what a friend is?"

"I have encountered the word frequently in reading," the Robot said. "Shall I give Webster's definition?"

"No," Tony said. "I want you to find out what it means by experience. A friend is somebody who want you to be satisfied, somebody you want to stay with, never want to be sold to somebody else. Is there anything you would like to have before you start your new job, anything that would make you more — ah — comfortable?"

"If it's not too much to ask, sir," the Robot said, "I would present a much neater appearance with a new coat of paint."

"Done!" Tony said, "You shall have the best paint job an auto body shop can give you. But I think you'd better keep quiet while they're doing it, let them think you're one of those fakes."

"As you wish, sir," the Robot said.

"You can quit calling me sir," Tony said, "The name is Tony Green. Mr. Green in the office and Tony elsewhere. Don't you  
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have a name? What shall I call you?"

"I was called by several names in pictures."

"Well, let's give you a new one. I'm going to call you my little Einstein."

"That's very flattering."

"You know who Einstein was?"

"I have encountered references to Einstein's theory. And I have seen the name used by itself in fiction, to indicate someone brilliant. But I have had little opportunity to read scientific books. I wish I could read some, particularly on cybernetics."

"We'll take care of that, friend. It so happens that I have quite a good collection of books on cybernetics."

Silently, Tony reflected that he would have to select the Robot's reading material with some care. A Robot who could program himself from the printed page could easily get too smart to handle if he learned too much about what made him tick.

"Thank you, Tony," it said.

"Attaboy, Einstein," Tony replied. "By the way — you say you are incapable of original thought. Where did you get the idea of sending out rescue messages like that?"

"From a novel. A young woman was being held captive by a cruel and lustful factory owner. All day she had to paste labels on

canned goods. Then at night she was chained in an attic, where the factory owner came to ravish her. She wrote messages on the back of some labels. A handsome young man bought a can of peaches and came to rescue her."

"I don't recall the plot, but it sounds corny enough to be one of our bondage books. Maybe it was one of our competitor's. I can see you have a good background in this field."

Tony was beginning to have the glimmering of an idea that perhaps Einstein would be good for something more than proof-reading. He wasn't capable of original thought, he could only put together bits and pieces of what he had read, but what else did the authors of these sexies do, anyway?

Tony Green's office was on the second floor of the loft building the publisher had converted into offices and warehouse. It was the only office up there. There was a good deal of traffic to the editor's office, of authors and would-be authors inquiring about requirements. The boss, a man who liked everything to look businesslike in case of a raid from the vice squad, objected to bearded and sometimes untidy writers cluttering up the main floor. The editor was not enough

of a wheel in the organization to rate a private secretary, so he was alone in his office most of the time, except when the authors called, and the reception desk always gave him warning of that. It was an ideal set-up to keep Einstein's presence a secret, particularly since there was a vault on the second floor, where the original manuscripts of published books and contracts were kept.

After sneaking Einstein in on a Saturday afternoon, when nobody else was in the place, Tony kept him locked up in the vault, opening the door only when they were alone on that floor. These quarters were not as large as the cubbyhole the Robot had occupied during the day in the bookstore, but Einstein seemed quite happy there. He had a new coat of paint, the color picked by Tony, since the Robot turned out to be color-blind. He had selected scientific books to read for recreation. As a proof-reader of sexies, he was a whiz. He didn't even need to be taught the standard proof-reading marks; they were on an appendix page in the unabridged the Robot had stored in his memory-banks. If Tony had referred to proof-reading instead of asking him whether he could read proof that first day they met, the Robot would have understood immediately.

Tony no longer had to take

proofs home to read in the evenings and on week-ends, and his eyes weren't quite so tired, though he still had to evaluate manuscripts and edit those selected. The standard of accuracy in the books improved materially. The shipping schedule was met on time every month, which had seldom been the case before. Tony got a raise and was feeling quite smug about his discovery.

Then one of the regular authors, who had been furnishing a book a month, had a nervous breakdown. The cover for his current opus had already been printed, the contract having been signed, as usual, on the basis of a few sample chapters and outline. There were three other authors Tony could depend upon to deliver finished manuscripts on time, but they were also under contract, and none of them had progressed far enough on his own book to take on the job of completing another within two weeks.

In desperation, Tony called Einstein. That was his lucky day. By then the Robot had thousands of bits and pieces stored in his memory banks, plot situations, from which to choose the spare dialog, characters, sex scenes, parts to fill in the bare outline. Since the Robot wasted no time sleeping and eating, he was even faster than the human fiction

factories who dictated their novels. He delivered the finished manuscript the morning after Tony had given him the assignment.

It fitted requirements to a T. True enough, it changed style every few paragraphs as Einstein borrowed from different sexes he had read, but that was a minor matter. The names of the characters were uniform throughout, which was more than Tony could expect from some of his human authors. It was grammatical, the spelling was, of course, irrep- roachable, and the word-length precise.

This was only the beginning of Einstein's career as an author. Next he mastered the technique of writing outlines, by reading all the outlines of previous books in the files. Soon he was turning out a book a week, under four psue- donyms, in addition to reading proof on eight or ten books a month. Between the three regu- lars and the Robot, Tony built up a whole stable of authors whose work took very little edit- ing. The agents ceased submis- sions, since they were all rejected without being read.

Within a few more months, Tony had so much confidence in the Robot's performance, that he turned over practically all of the editorial duties, in addition to the writing chore. Tony mere-



ly approved the outlines, and sometimes changed the titles. He hadn't read a whole manuscript in some time; the Robot did all that, and even wrote the flyleaf copy and the ads in the back of the books. Einstein was busy around the clock, and no longer had time to read scientific books; which Tony thought was just as well. The Robot already knew all an author and editor of sexies needs to know.

When the office shipment of the new October books arrived from the printer's, the publisher brought sample copies upstairs in person. Tony leaned back in his chair, ready to bask in another compliment, perhaps accept another raise.

"Is this your idea of a gag or something?" the boss demanded.

"What's wrong?" Tony asked.

"Look at the endings," the publisher told him, "They're all the same."

Tony's confusion and dismay increased as he opened book after book to the last page before the ads. In each of them, after the words, "the end," a paragraph in italics had been added. Not only in the four books Einstein had written, but in those he had proof-read as well. They all carried the same paragraph. It read:

*"Help, help! I am being held  
in bondage!"*

*Come save me. I am only sixteen years old."*

—SYLVIA JACOBS



## FORECAST

Half a dozen years ago or more, a young lady named Sydney Van Scyoc (her friends call her "Joyce") began appearing in *Galaxy* and elsewhere with some provocative little stories that seemed to promise the beginning of an interesting career. The problems of the woman writer are even graver than those of the man; there comes a time when the babies are getting born and growing old enough to get out of the house, and during that time few if any stories get written. But finally the time comes when a girl can settle down to writing again, and it seems to have come for Sydney Van Scyoc. As a tooling-up exercise, she wrote *A Visit to Cleveland General*, which appeared here a couple of months ago. Next month she joins us with the biggest effort so far.

It's called *Little Blue Hawk*. We liked it very much. "Little Blue Hawk" is a man — sort of. He lives on Earth, a somewhat different Earth than our own. And he has to battle for survival.

You've heard that words are weapons? Little Blue Hawk's words are. They can kill.

# AND NOW THEY WAKE

by KEITH LAUMER



Illustrated by GAUGHAN

*The world had been given a gift of  
radiant power from the air; and it  
seemed likely to destroy mankind*

## WHAT HAS GONE BEFORE

*At Pasmaquoddy Power Station the United States has just inaugurated a new system of broadcast power. It works perfectly; the change-over occurs without incident; all federal installations, including Florida's Caine Island Penitentiary, begin smoothly to tap the broadcast energy for all their requirements.*

*The experiment is a success. . . .*

*Yet certain things occur.*

*For some reason, more power is being taken from the broadcast than the total of authorized users can account for.*

*In an eastern city, an ancient derelict suddenly comes to life. He totters to a sauna, sits soaking in the steam longer than any human being should be able to, emerges looking decades younger. A doctor observes with incredulity as the man's scars disappear and an ugly cyst on his back changes shape and pops out a corroded old Minie ball of Civil War vintage; the man will answer no questions, but he goes out into the night on an urgent and unexplained errand.*

*At Caine Island, the oldest prisoner in the place, who has been there so long no one remembers his crime or when he came, breaks free of two armed guards and dives into the sea.*

*And in the ocean off the Florida coast, a hurricane begins to form — but a hurricane such as no man has ever seen: motionless, in a position that makes no meteorological sense, and hunger than any storm on record.*

*The two strange men race toward a common destination, though neither knows that the other exists. Strange memories of ancient Viking days come to them — tall primitive warriors,*

*somehow linked with a thinking, superpowerful starship and a terrifying werebeast that slew helpless humans, centuries before. . . .*

## VI

Aboard the weather satellite, the meteorologists on duty, as well as half the off-duty staff, were gathered in the main observation deck, watching the big screens which showed a view of the night side of the planet below. Faint smudges of diffuse light marked the positions of the great metropolitan areas along the eastern American seaboard. A rosy arc still embraced the western horizon, fading visibly with the turn of the planet. The voice of the observer on duty at Merritt Island came from the big wall annunciator, marred by static.

" . . . the turbulence is on an unprecended scale which plays hell with observation, but we've run what we have through the computer. The picture that's building is a pretty strange one. We get a pattern of an expanding circular front, centered off Bermuda. The volumes of air involved are staggering. Winds have reached one hundred fifty knots now, at fifty miles from the center. We're getting a kind of rolling action: High air masses being drawn down, dumping ice crystals, then rolling gunder and join-

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ing in the main coriolis rotation. The jet stream is being affected as far away as Iceland. All Southern Route flights are being diverted north. Meanwhile, the temperature off the Irish coast is dropping like an express elevator. It looks very much as if the Gulf Stream is being pulled off course, and dissipated down into the South Atlantic."

Fred Hoffa, Senior Meteorologist, exchanged puzzled looks with the Satellite Commander.

"We hear you, Tom," he said into his hand-held microphone. "But we don't quite understand this. What you're describing is a contradiction in terms. You have all that cold, high altitude air rushing. What's pulling it? Where's it going? Same for the ocean currents. We've been plotting the data, and it looks like a lot of water flowing toward the storm center, nothing coming out. It doesn't make much sense."

"I'm just passing on what the tapes tell me, Fred. I know it sounds screwy. And some of the data is probably faulty. But the pattern is plain enough. Wait until daylight and you'll see."

The general took the microphone. "Merritt Island, we've been studying this thing by IR, radar and laser, and all we can make of it is one hell of a big whirlpool — just what that Neptune pilot described."

"It's not exactly a normal whirlpool. It's more like what you see when the water runs down a bathtub drain."

"Yes, but that's . . ." Fred's voice died away.

"Now you're getting the idea," Tom said. "We estimate that two point five cubic miles of seawater have poured down that hole in the last six hours."

"But — where's it going?"

"That's a good question. Let us know down here if you figure out an answer."

A taxi was parked at the curb before the narrow front of an all-night eatery. The driver was inside, hunched on a stool over a cup of coffee. He turned as the door opened, gave the big man who came in a hard-eyed look, turned back to the counterman.

"So I told him, I said, what the hell, nobody tells John Zabisky how to drive. I says, look, Mac, I'm eighteen years in the hacking game and I've drove all kinds, and I don't take nobody telling me —"

"Excuse the intrusion, Mr. Zabisky," the newcomer said. "I need a cab, urgently."

The cabbie turned slowly. "How you know my name—"

"You mentioned it just now."

"Who're you?"

"Falconer is the name. As I said, it's urgent."

"Yeah, yeah, hold your water. Everything's urgent to you guys. To me this cup of java's urgent."

The counterman was leaning on one elbow, working on a molar with a broom straw. He withdrew it and examined the tip, smiling sourly.

"Refill, John?"

"Hell yes, sure, why not?"

"It's worth fifty dollars to me to get to Princeton immediately," the man who called himself Falconer said.

"Princeton? New Jersey? In this weather? You nuts or something? I wouldn't drive it in daylight for fifty bucks."

"You're off-duty?"

"Naw, I'm not off duty. Why?"

"Your license says you'll take a customer where he wants to go — for the fare on the meter."

"Get this guy," John said, staring at Falconer's smooth, unlined face. "What are you, kid, playing hookey? Your old lady know you are out at this time o' night?"

Falconer smiled gently. "Like to come outside with me Zabisky?"

The husky driver came off the stool in a rush which somehow lost momentum as he crowded against Falconer; he found himself eased gently backward. It hadn't been like running into a brick wall — not exactly.

"Hey, not inside, John," the counterman spoke up. "But you

can take him in the alley. I like to see these wise guys get it."

The cabby whirled on him. "How would you like me to come around there and cave in a few slats for you, loudmouth? Whatta you trying to do, lose me a fare?" He jerked his mackinaw straight and gave Falconer a sideways look.

"I'll take twenty now," he said. "Where in Princeton you want to go?"

It was a long drive through rain that gusted and swirled across the car glass like a battery of fire hoses. On the outskirts of the town, the cabby mumbled, peering ahead, negotiating the twists and turns of the road down which Falconer had directed him. The headlights picked up a pair of massive wrought-iron gates set in a high brick wall.

"Dim your lights three times," Falconer instructed as the cab pulled up facing the gates. The gates swung back on a graveled drive. They went along it, halted before wide steps, a colonaded veranda behind which tall windows reflected blackness and the shine of headlights on wet leaves.

"Looks like nobody home," the driver said. "Who lives here?"

"I do." Rain swirled in Falconer's face as he opened the door on the left side. "We have some unfinished business, Mr. Zabisky," he said. He stepped out and

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turned; the driver's door flew open, and Zabisky bounded out, a tire iron in his knobbed fist.

"Okay, Mister, start something," he bawled over the sounds of the storm. Falconer moved toward him; an instant later the tire iron was skidding across the drive. Empty-handed, Zabisky faced Falconer, an expression of astonishment on his wide face.

"That makes it more even, don't you think, Zabisky?" Falconer called. The driver put his head down and ploughed in, both fists swinging. Falconer took a solid blow on the chest before he tied him up, spun him, held him with both arms locked behind his back.

"Ready to surrender, Zabisky?"

"Go to hell!" The cabbie tried to kick Falconer's shin. He gave his arms another twist of the cloth.

"Ask me nicely, and I'll let you go."

"Have your fun, Mister," Zabisky grunted. "Break 'em off at the elbow. I ask you nothin'."

Falconer released the man; he turned at bay, fists cocked. His thick hair was plastered across his wide, low forehead. He licked rain off his lips, waiting.

"Zabisky, do you have a family? Anyone who'll worry if you don't come home for a few days?"

"What's it to you?"

"I need a man who doesn't wilt

under pressure. You'll do. I'll pay you a hundred dollars a day plus expenses."

"Shove it, Mister."

"Two hundred."

"I'm offering you a job. I had to know something about you first. Don't feel badly about not being able to use that tire iron on me. I'm a professional fighter."

Zabisky frowned. "What you want me to do? I don't go for the rough stuff."

"I want you to drive my car."

"Two cees a day for a chauffeur?"

"It's my money." Falconer took out folded money, handed over two hundred dollar bills. Zabisky looked at them.

"Where to?"

"Anywhere I tell you."

Zabisky considered. "This on the level?"

"Why would I waste your time and mine? Come inside and we'll talk about it." Falconer turned and went up the steps. After a moment Zabisky tucked the bills away and followed.

**I**n the governor's office at Caine Island, Captain Brasher of the guard force stood before his chief's desk, looking uncomfortable.

"The house belongs to a Mrs. Talbot," he was saying. "A widow, age about twenty-five. Not bad-looking."

"Never mind her looks. Where is she?"

"We haven't found her yet. But —"

"Any signs of violence in the house?"

"Not unless you want to include two men stretched on the floor." Brasher snapped.

"Did they see who attacked them?"

"They haven't been able to tell us anything useful. You know how these concussion cases are, Governor. Harmon says he didn't see who hit him. Weinert has no memory of anything since yesterday's ball game."

"What about the woman's car?"

"A '59 Rambler, pale tan with white top, license number 40D657, dent in right front fender."

"Has it been seen?"

It went through the north causeway roadblock at 12:13. The woman was driving. She was alone."

"Are you sure of that?"

"The sheriff's boys went over the car with a fine-tooth comb, naturally. It was clean."

"Any other cars pass the roadblock?"

"Not a one. Most people know enough to stay home in this weather."

"What else do you know about the woman?"

"She's lived in the shack for

the past couple of years. She had a brother who was an inmate here, he died last March. She used to visit him. I don't know why she hung around afterward."

"Tell me more about the car. Was there anything unusual about it? Any bundles on the back seat, rug on the floor, anything at all?"

"My boys would have caught anything like that. The car was clean. At the time we had no reason to hold the woman."

"Where was she going at that hour, in this weather?"

"She was on her way to relatives in the northern part of the state; she was worried about flooding."

"Where in the northern part of the state?"

"Gainesville, she said."

"Get the names of these relatives?"

"Well —"

"Find out, Brasher. And put out a general alert on the car. I want it found fast. And when it's found, I want it gone over with magnifying glasses: over, in and under!"

"Naturally I've alerted the State Highway Patrol," Brasher saw. "But frankly, Governor, I don't understand all this emphasis on the car. The woman obviously left the house before Grayle arrived. He found the house empty and broke in —"

"Are there any signs of that?"

"Well, the locks weren't broken. But — " He broke off, looking astounded. "By God! It's clear as day! The little bitch was in on it! They planned it in advance! She was waiting for him, with the car gassed up and ready to go — "

"Planned it two and a half years in advance — including the death of the brother? And I thought you said she was alone in the car. But never mind. Check on the car. Find out where it was serviced, what kind of shape it was in, whether she had any special work done on it. Talk to her friends. Find out if she ever met Grayle, ever visited the prison after her husband died. And Captain. . . ." He held Brasher's eyes with a cold expression. "I'll bet you my retirement to your next promotion you don't find a thing."

The guard chief returned the glare. "I'll take that bet — sir."

Chief Engineer Hunnicut, arriving seven minutes late for his scheduled briefing of the officials assembled in the office of the Regional Director, USPPA, looked around at the grim expressions lining the long table.

"I won't waste your time with generalities, gentlemen. You're aware that some difficulties have developed in the first hours of op-

eration of the APU station. In essence, it boils down to a rather wide discrepancy between rated and actual efficiency. This in turn suggests a power leakage, which at first glance appears preposterous. A very specialized type of receiver is required to draw power from the transmission field,"

"It was our understanding that nothing of the sort was possible," a jowly man with a mane of gray hair cut in brusquely. "I recall the objections raised in the early hearings, and the contemptuous way in which those objections were put down by you so-called technical people. And you have the effrontery to stand up here and tell us power is leaking — or being stolen from the US government."

"I don't know who you've been talking to, Senator," Hunnicut said. "But I said nothing whatever about power being stolen. I think it would be wise to avoid leaping to any conclusions at this point — particularly before you have heard what I came here to report to you."

"Well, it certainly appears obvious. . . ." The senator trailed off.

"It's far from obvious. This is a new technology, gentlemen. Even those of us who designed and constructed the system don't pretend to know all the answers; I think it would behoove others



with less knowledge of the facts to exercise some restraint in the ideas they spread abroad. Those comments may come home to roost."

Hunnicut swept the table with a challenging look. "Now, as to what we've turned up — it appears that there are at least two field discontinuities, other than those accounted for by the nine receiving stations."

"What's a field discontinuity?"

"A point of demand on the power field creates a distinctive fluctuation in the field-strength gradient. We're dealing with what might be described as force lines, analogous to the force lines of a magnetic field. When power is drawn, these force lines are bent toward the point of demand."

"Well — where are these illegal receivers? What are you doing about them? Whom have you notified? Do you intend to allow them to simply continue to drain off God knows how many thousands of kilowatts of government owned power, and thumb their noses at us?"

"The pin-pointing of these discontinuities is not quite so simple as locating an illegal radio transmitter, for example. It's necessary to take a large number of field strength readings, and to plot them against the theoretical flux density pattern. Again I remind you that the state of the art — "

"We're not here to listen to a lecture on art," the senator cut in. "I've asked you a number of questions, young man, and I expect — "

"I'm no longer a young man, Senator," Hunnicut broke in. He felt his temper breaking at last; and it felt damned good. A feeling almost of exultation filled him. Here was a target he could hit. And I have a sneaking suspicion these gentlemen didn't come here to listen to your expectations. I'm trying to tell you what we've learned so far. If you'd sit still and listen for a few minutes, you might find it unnecessary to waste time with pointless needling. Now as I was saying — "

"Look here — " the senator started from his chair, but allowed his colleagues to pull him back and sooth him.

" — we're fairly certain we have two points of power loss to deal with, one considerably more massive than the other. The lesser of the two seems to be located quite close to the generating station, possibly in the mountainous area to the north — "

"What in the world is up there that could be drawing power from the net?" a thin, elderly fellow whom Hunnicut recognized as a State University Board Member burst out, then subsided, looking embarrassed.

"We don't know. We're pro-

ceeding on the theory that it's a purely natural phenomenon."

"How is that possible the senator snorted. "I seem to remember being told that this entire system is a vastly sophisticated piece of ultra-modern engineering, that the whole theory behind it isn't more than five years old."

"Nature knows nothing of our theories," Hunnicut said flatly. "The sun was shining long before we understood sub-nuclear physics, radioactivity was heating the earth for five billion years before the Curies. It may well be that some type of geological formation we know nothing about has the characteristic of absorbing energy in the broadcast spectrum. That theory may or may not be supported by the other findings we have developed."

"No dramatic pauses, if you please, Mr. Hunnicut!" the senator interjected into the momentary silence.

"I'll remind you that this is tentative, gentlemen," Hunnicut ignored the barb. "But at the moment it appears that the second demand point coincides with the center of the storm that's ripping the East Coast to shreds at the moment."

"So — what does that mean?"

"As to that, Senator, your guess is as good as mine."

"Very well, what's your guess?"

AND NOW THEY WAKE

"My guess," Hunnicut said slowly, staring the senator down, "is that the thing that's creating the whirlpool is drawing its power from the Pasmaquoddie Station."

There was a burst of exclamations; the thin voice of the Interior Department man won out:

"You're saying that someone — the Communists, perhaps — are using our power system to create this storm?"

"I said nothing about Communists. But the relationship seems indisputable."

"Poppycock!" the senator barked. "You're attempting to explain away the failure of your scheme by conjuring up imaginary menaces. Russians manipulating the weather, eh? That's the damndest piece of nonsense I've ever heard!"

"That's not what I said."

"But you implied it!"

"I implied nothing."

"Gentlemen!" Peacemakers were on their feet, urging the two verbal antagonists to their seats. "This wrangling is getting us nowhere," an Army colonel said. "We're here to assemble data, nothing more. Let's stick to the facts."

"The facts are that I'm recommending that the transmitter be shut down immediately, until the possible correlation can be checked out," Hunnicut said.

"Preposterous!" the senator barked. "That would be a public announcement of failure!"

"Impossible," the Interior Department representative said flatly. "The entire project would be discredited by any such shut-down — to say nothing of the problems it would cause those facilities that are now operating on the broadcast system."

"Very well; you gentlemen can act as you see fit. But I'm submitting my recommendation in writing to the Secretary, personally."

"If you do, Mr. Hunnicut," the senator said, "that will be the end of a promising career."

"If I don't," Hunnicut said, "it may be the end of something considerably more important than my career."

The insistent *chirrr* of the muted telephone woke the President of the United States from a restless sleep. He lifted the faintly glowing receiver and cleared his throat.

"All right," he said.

"Mr. President, General Maynard is recommending immediate evacuation of the Florida keys. Governor Cook has declared a state of emergency and requests Federal disaster action."

"Winds still rising?"

"Yes sir. Over ninety knots now. Record tides along the entire

South Florida coast. Water and wind damage as far north as Hatteras. No signs of any letup, according to Merritt Island."

"Tell the general to go ahead with the evacuation. Give him full Armed Forces support. I don't envy him the chore."

"No, sir. I have one other item. I wouldn't have bothered you, but as long as I already have — an engineer on the Pasmaquoddi project, a man by the name of Hunnicut — "

"I remember the name, Jerry."

"Yes, sir. He's submitted a recommendation direct to Secretary Tyndall, over the heads of his direct superiors, to the effect that the power broadcast is in some way affecting the storm. Making it worse, I gather. He's requesting authorization to shut down long enough to observe results, if any."

"That's a pretty extreme request, Jerry."

"Hunnicut is known as a level-headed man, sir. And he's laying his job on the line with this action. Still, as you say, it sounds fantastic."

"Check it out, Jerry. Get some other opinion — outside opinions. Don't let Bob Tyndall pressure you. Get at the facts. And see what impact this shutdown would have."

"I checked that aspect out, sir. There'd be no particular problem, except for Caine Island Prison.

They're on the broadcast net, as you know. And they've lost their backup capability. The winds have knocked out the over-water cable, and their stand-by generators have been flooded. Without broadcast power they'd be in serious trouble."

"What about evacuation?"

"Sir, there are twelve hundred maximum security prisoners at Caine Island."

"I see. All right, get on it and come back to me with firm recommendations by — " The President glanced at the glowing dial of the bedside clock. "Hell, I might as well get up and come down to the office. I'm not going to get any more sleep tonight."

*The courier boat is hidden in the place Lokrien had described, a shallow gorge high in the mountains. The smooth green-gray curve of the Ul-metal hull glows softly in the dark. As Galgrather slides down the slope in a clatter of pebbles, the entry port, triggered by the field generated by the bioprosthesis devices in his body, opens to admit him. Hammer in hand he strides along the glare-strip lighted passage to the control compartment.*

"Welcome aboard, Captain-Lieutenant," a smooth voice says from above him. He goes flat

*against the wall, his teeth bared. He has forgotten that the ships of Ysar speak with a man's voice.*

"Commander Lokrien is not aboard at this time," the construct-vice states. "Kindly make yourself comfortable until his return. The refreshment cubicle is located — "

"Where is he?"

"I detect that you are agitated," the voice says calmly. "You are invited to make use of a tranquilizing spray." There is a soft click, and a small silver tube pops from a dispenser slot beside the conn chair.

Gralgrather snarls, swings the hammer against the plaston panel. It rebounds harmlessly.

"Attention!" the voice says sharply. "You are ordered to withdraw from the control compartment at once! This is an operational urgent command!" A sharp jolt of electricity through the floor reinforces the words. Gralgrather whirls and runs aft, slamming open each door, searching every cranny of the compact vessel.

"Where are you hiding, Loki?" he shouted. "Come out and face me, and tell me again about the needs of the empire!"

"Captain-Lieutenant, I perceive that you are in a dangerously excited state." The cybernetic voice issues from a speaker in the passage. "I must ask you to

*leave the vessel at once." A low-voltage shock throws him against the bulkhead. He turns and makes his way, stumbling, to the power cell chamber door, smashes the lock with a blow. Inside, ignoring repeated shocks, he takes aim at the massive conductors leading up from the coil chamber, and with all the power of his back and arms, brings the hammer down on the casing. The instantaneous blast that follows blows him into scarlet darkness.*

## VII

Inside the big house, Falconer ushered the cab driver into a big, high-ceilinged room with trophy-covered oak walls, a vast granite fireplace, deep rugs, low, comfortable furniture. He poured the man a drink at a mahogany-topped bar that occupied most of one wall, adjacent to glass doors that opened onto a flagstone terrace.

"I'll be with you in about ten minutes," he said, and left the room, went up the wide, curved stairway, along the hall to a spacious bedroom. He donned a heavy cavalry twill shirt, whipcord jodphurs, low boots. He strapped a lightweight holster under his arm, fitted a flat pistol to it, then pulled a dark blue, Navy-issue weather-jacket on.

Zabisky looked around as Fal-

coner walked into the study.

"You got some nice pieces here, Mister," he said. He pointed a blunt forefinger at a tarnished cuirass and a pair of crossed pikes over the bar.

"That looks like the old Polish armer," he said. "Sixteen hundreds. It took a man to wear that stuff all day, I'll tell you."

Falconer nodded. "Indeed it did. You're interested in armory?"

"Well, you know. A guy's got to have a hobby," he said. "You got quite a collection here." His eyes roved over the array of weapons, plate-armor, mail, the faded banners and scarred escutcheons. "Hey," he said, pointed with his chin toward a lozenge-shaped shield bearing a design of a two-headed eagle in dark bronze. "Where'd you get that?"

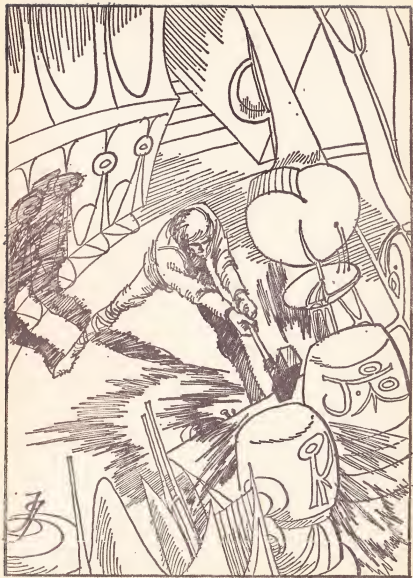
"At Vienna."

"Funny. I got an old beer tankard at home, been in the family for a long time, got the same picture on it. Supposed to belonged to my ancestors. The story is, we had a king in the family, once." He laughed, glancing sideways at Falconer. "I guess it's a lot of bull, but my old great-aunt Dragica, she's a nut on genealogy, you know; she comes up with all this stuff."

"Your name was familiar," Falconer said. "You're a descendant of king John Sobieski?"

"Yeah, that was his name. You

GALAXY



heard of him? Geeze. I'm named for him."

"He was a man," Falconer said. "Taller than you, big as an ox through the chest and shoulders, fair hair, but eyes much like yours. He had the gift of laughter. He was much beloved by his men."

Zabisky stared, gave a short laugh. "You talk like you knew the guy."

"I've read of him," Falconer said shortly. "Let's go, John."

"Yeah." Zabisky followed Falconer outside. In the drive, he halted.

"Hey, Mister. There's just one more thing.

Falconer turned. Zabisky took a quick step toward him, rammed a powerful right jab toward Falconer's sternum. Falconer turned half sideways, caught the wrist, bright it forward under his arm, levered the elbow backward across his chest.

"Okay. I just wanted to check," Zabisky said.

They went along a brick walk; Falconer lifted one of the five doors on the long garage. Zabisky whistled at the gleaming shapes parked in the gloom.

"A Jag XK120, an SJ Doosie, a SSK Mercedes, a Bugatti 41, ain't it? And what's that. It looks like a '35 Auburn — "

"It's a '68 Auburn 866. New production."

"Man, you know your cars. Which one are we taking?"

"The Auburn."

Zabisky whistled again, running a hand along the sleek lines of the car. "What's she got under the hood?"

"A Thunderbird 386 horsepower V-8."

"And I get paid too, hah? Let's go pal. I want to see how this baby turns up."

They pulled out along the drive swiftly, noiselessly. At the road, Zabisky turned to Falconer.

"Where to?"

Falconer pointed.

"What town we headed for?"

"Just drive, John. I'll tell you when to turn." Falconer leaned back against the smooth leather seat and in ten seconds was sound asleep.

"The Highway Patrol found the car parked on a side street in Brooksville," Captain Brasher said. "Key in the ignition, nobody around."

"What kind of neighborhood was it?" Hardman asked.

The captain gave a lift of his khaki-epauletted shoulders. "After all, I wasn't there. I can't be expected to know every detail."

"That's just what I do expect, Brasher! And I don't expect to wait until morning to find out what kind of car Grayle is driving now!"

The intercom buzzed; the governor jabbed the button savagely.

"Sir, Captain Lacey of the Highway Patrol on the line for Captain Brasher. Shall I —"

"Put him on." He picked up the phone, listened to clicks.

"This is Hardman at Caine Island, Captain," he said. "I'll take your report."

"Yes, sir. On the Rambler: we found it in Brooksville."

"Yes, I know. Any leads?"

"Looks like he knocked over the watchman at the Ford car agency. It's just across the street from where the Rambler was parked. He's still out, but when he comes around he can tell us if anything's missing from the lot."

"Good. Keep me informed."

The governor cradled the phone and looked across at Brasher. "He took a car from the Ford lot he was parked beside. We don't know what model or color, but we can be pretty sure it's a new one." He swiveled to look at the map of the state on the wall. "Lacey, I want you to watch 1-74 and 1-4, and US 19, north and south. Stop any new Ford."

"That's a pretty tall order."

"Still — I'm ordering it!" He cradled the phone.

"I want a man on the scene. A reliable man, representing my — our — interests."

AND NOW THEY WAKE

"Harmon," Brasher said at once. "He's keen. A good man."

"I thought he was in the hospital."

"He has a headache that gives him a personal interest in nailing Grayle. They'd had run-ins before."

"Get him up there, right away."

When Brasher had left, the governor poured himself a stiff Scotch from his office bar, then keyed the intercom and called for Lester Pale. The man came in a few minutes later, looking troubled.

"Anything yet, Lester?"

"Nothing that makes any sense, sir."

"Let's have it anyway."

Lester spread papers on the edge of the desk.

"My Pentagon contact came through with a reference to a prisoner named Grayle —"

"First name?"

"Just an initial: T. This Grayle was transferred to Ft. Leavenworth from Ft. McNair at Washington, after a court-martial conviction for murder."

"Any details of the crime?"

"Yes, sir. The trial transcript is attached. It seems he was in an Army stockade at the time of the murder."

"What motive?"

"It appears he knew the victim. Other than that —" Lester shook his head. "Frankly, this is



pretty hard reading. A poor photostat to begin with, and cramped handwriting — ”

“What do you mean, handwriting? Don’t you have a copy of the official record?”

“Yes, sir,” Lester said flatly. “But in 1863 there weren’t any typewriters.”

Hardman stared blankly at his aide; he reached, plucked the papers from the other’s hands, scanned the sheets.

“What the devil is this, Lester? This is an account of a Civil War trial!”

“Yes, sir. The man named Grayle was a Confederate prisoner. And the man he killed was a Union officer.”

“Union officer?” Hardman echoed.

“There’s one discrepancy in the story, though,” Lester continued in a voice that seemed on the edge of breaking. “The rumor here at Caine Island was that Grayle did the job with an axe; but according to this, he used a hammer.”

“Let me get this straight,” the guard lieutenant said softly. “Are you giving me the kill order on this pigeon?”

“Not at all.” Brasher’s eyes stared through the other man. “But if he’s gunned down in a fire-fight, with witnesses that he fired the first shot. . . .”

The lieutenant nodded, touched his tongue to his lips. “Yeah,” he said. “Now you’re talking, sir. Blale and Weinert’ll feel better when they hear — ”

“They’ll hear nothing, damn you! Keep this to yourself. But be damned sure you’re in at the kill, understand?”

“You bet, Cap’n. The lieutenant patted the old-fashioned .38 calibre solid-slug pistol he wore at his hip. “I’ll be there!”

“We should leave the main road,” Grayle said.

“We can’t,” the girl said decisively. “The whole road system of Florida was built to carry tourists north and south in a hurry. This was unoccupied land just a few years ago. There isn’t any network of farm roads and secondary roads like there is in most states.”

“What about that?” Grayle pointed to an exit from the multi-laned expressway.

“It just leads into a town. We are making good time.”

They saw the roadblock then: a pair of police cruisers parked across two of the four north-bound lanes three hundred yards ahead, red flashers winking. Anne wrenched the wheel hard right, with a squeal of tires took the exit ramp.

Grayle looked back. One of the police cars was in motion, swing-

ing in a tight turn around the central divider strip.

"They saw us."

Anne hurled the car down out and out of the curving ramp, joined a wide, empty avenue glistening under the eerie blue glare of pole-mounted mercury vapor lamps. Above high, concrete-retained banks, the fronts of ancient frame houses stared out across the traffic chasm like gaunt old men facing an open grave. A cross street was coming up. Anne braked, skidded, caught it, slammed over the curb and across the apron of a service station, missed a parked wrecker by inches, shot into the narrow mouth of a side street, sending black water sheeting. She cut the headlights, slowed to a crawl, pulled into a weed-grown driveway, reached across to tilt the rear-view mirror. For a moment, nothing stirred in the rectangle of glass; then light grew, became the glare of high beams, probing along the dark street. The flasher winked as the police car came slowly along the street. A spotlight beam lanced out, pushed hard shadows across the headliner. The car halted ten feet from the rear bumper of the Ford.

"Don't move." Grayle gripped the right side door handle, twisted it silently, held it. Rain beat on the top of the car; faintly, feet squelched in mud, coming for-

ward along the driver's side. As they halted, Grayle threw the door open, sending the man reeling back and down. He came out of the car in a lunge, stooped and swept the gun from the hand of the felled policeman, threw it from him, flattened himself against the side of the car near the rear wheel. He looked at the angry frightened face staring up at him.

"Tell your partner to throw away his gun and come around to this side," he said.

The man on the ground didn't move, didn't speak. Rain washed pink blood from a cut lip down across his face.

"Go for his feet, Charlie!" he shouted suddenly and threw himself at Grayle in a scrambling plunge. A vivid double flash, the boom-boom! of a gun, from the other side of the car, whining ricochets. Grayle rounded the back of the car, straight-armed the man coming from the opposite side, sent him sprawling. He ran for the cover of the ragged junipers lining the drive, plunged through as the gun racketed again. He ran past the front of the house, ripped through a four-foot hedge, cut left, was back at the curb. One of the men was running heavily down toward the police car in the street. Grayle sprinted, reached it first had the door open when he saw

the second policeman grappling with a slim, furiously struggling figure beside the Ford. The running cop had seen Grayle; he skidded to a halt, bringing his gun up —

Grayle dived under the flash, heard the *spang!* of the solid slug against metal behind him as he took the man at knee height, felt bone break, heard the ragged scream of the man as he fell away. Grayle rolled to his feet, ran up the drive. The man by the car threw Anne from him; a slim, flat needlepump in his hand made a harsh, rasping buzz; Grayle felt the blow of a fiery club against his chest; then he was on the man, spinning him, throwing the gun away into the darkness. He put a thumb hard into the base of the policeman's neck, dropped him. He lifted Anne, ran to the police car, tossed her onto the seat.

"Can you drive this?"

"Yes." The engine was idling. Grayle slid into the seat and closed the door; the car spun away from the curb, fishtailed, straightened out, its headlights burning a tunnel through blackness. Anne looked at Grayle.

"Are you all right? I thought he shot you —"

"I'm all right."

"He couldn't have missed! Not at that distance!"

"Watch the road," Grayle said gently. He put his hand on his side; the heavy prison shirt was ripped; under it, hot blood oozed from torn hide. Anne's eyes went to his hand. She gasped and the car veered. "You're hurt!"

"Don't be concerned about me, Anne. We have more immediate problems."

A voice crackled from the car radio:

"Jig One to Jig nine-two-five, where's that report, Clance? Over."

Grayle lifted the microphone dangling from a hook at the center of the dash, pressed the key.

"Jig nine-two-five to Jig One," he said, holding the mike well away from his mouth and roughening his voice. "Busy; call you later."

"Clance? What was that?" The man at the other end called twice more, then switched off abruptly.

"You didn't fool him," Anne said. "They have directional gear; they know where this car is. They are tracking us right now."

They had turned into a prosperous-looking commercial street. Neon and glare signs shone through the driving downpour. A tall Sabal palm was down across the flooded street. The wind blew fallen fronds across the pavement. There were no people in sight, few cars.

Grayle picked up the map from the front seat, opened it out, studied the street map on the reverse.

"There's an airfield shown here, nearby," he said.

"The police and taxi copter port."

"Yes?"

"Turn left ahead. It's about a mile."

"You did say 'Police'?"

"We need an aircraft. We have little choice."

"Grayle, I can't fly a copter."

"Perhaps I can."

"But — you can't drive a car!"

"I'm not familiar with ground vehicles, but I have considerable experience as a pilot. Do as I ask, Anne. As you said, we have no time to waste."

Anne laughed with a touch of hysteria, swung into a cross avenue toward a towering column of lights in the distance, doing a steady forty miles an hour down the center of the wide palm-lined street. A police car passed them, screaming in the opposite direction. As they swung around the periphery of a wide plaza a second police car passed them without slowing. The avenue ran straight between wide lawns crossed by broad walks, punctuated by illuminated fountains. Ahead, the lake was blackness. Before a low building on the left, there was movement in a court-

yard. Another car emerged from a ramp and sped away. There was a lighted gate ahead. A policeman in a yellow slicker stepped from the shed to wave them through. Anne gave a gasp that was half a sob, half laughter.

"People see what they expect to see," Grayle said. "They don't expect to see us here."

There were a dozen or more small aircraft in sight; three large fifty-passenger, cross-town shuttles bearing commercial blazons, several smaller civil craft, a big police riot heli, a number of small, fast two-man machines. At the far end of the line were a pair of squat, winged VTOL craft with Army markings. The headlights shone on them in turn as the car swung in a wide curve.

"Pull up there," Grayle said.

Anne pulled the car to a stop beside the first in line.

"Good-by, Anne," Grayle said.

"You intend to leave me here to face the police alone?" Anne asked with a smile that relieved the words of accusation.

"Very well. Let's go." Grayle jumped out, glanced over the small short-winged machine, then swung up beside the canopy; he felt over smooth metal, found a lever. The hatch opened with a soft whirring sound. As he slipped into the cockpit, Anne pulled herself up, slid gracefully into the

front seat. Grayle closed the hatch, studied the array of luminous dials. He touched a button and a cockpit light came on.

Anne turned to look back at him. "Are you sure you can fly this?"

"It shouldn't be difficult," he replied absently. He touched another button, and starters chugged; the short, wide-bladed propellers to either side flicked over jerkily. There was a burst of vapor from one engine; it caught, and a moment later the second joined in, whining up to speed. Grayle found the brake release, gave the engines a burst of power; the awkward ship rolled forward on its tricycle gear, rocking in the wind. The nose wheel, Grayle discovered, was steerable by the wheel before him. He turned sharply, passing close to the guard shack and the fence, swinging back out to face the wind howling off the lake. Again he paused to study the controls. One pair of levers ended in blunt cones, not unlike the engine nacelles and spinners. He grasped them and moved them up from horizontal to vertical. The nacelles obediently rotated. Now the propellers spun in a plane parallel to the pavement.

"Grayle — hurry! They've seen us!" Anne said. He followed the direction of her glance, saw men

coming across from the gate at a run.

"Fasten your belt," he called over the shrill of the turbines. "I suspect this machine is highly unstable."

He opened the throttles.

Instantly the craft leaped upward, nose high, drifting backward. He righted it; the plane hurtled forward, rocking and buffeting in the wind. Lights whipped past, just beyond the stubby wingtip, dropping away. Grayle turned the craft, letting the wind carry it. The altimeter needle moved jerkily around the dial. The compass steadied on a course of 305. At an airspeed of three hundred and fifty and a groundspeed fifty knots higher, the craft raced toward the northwest.

"We're dealing," said the Chief Meteorologist, United States Weather Service, "with a cone of air approximately one mile in height and having a diameter of two miles, in rotation at the rate of one revolution each one hundred and five seconds. The rate is increasing slowly on a decreasing exponential curve and should, for all practical purposes, stabilize in another thirty hours at approximately one RPM, giving a peripheral velocity of about one hundred and ten knots."

"They're already reporting winds in excess of a hundred miles an hour all the way from West Palm Beach to Boston," one of his audience of high-ranking government officials comprising the special Advisory Group cut in.

The weatherman nodded calmly. "Frictional forces naturally influence a large volume of air outside the nucleus of the disturbance. After stabilization, we should expect winds of over two hundred miles per hour throughout a belt about two hundred miles wide adjacent to the dynamic core, falling off at a rate of some ten knots for every hundred miles. At about one thousand miles from the center, turbulence causes a disintegration of the rotational pattern, creating randomly distributed squalls —"

"Good God, man! You're talking about a super-hurricane that will devastate a quarter of the country!"

The meteorologist pursed his lips. "That's a slight exaggeration," he said carefully. "Now, as to rainfall, the estimated precipitation for the eastern portion of the country is on the order of twenty inches per twenty-four hours. I emphasize, that this is an average figure —"

"Do you realize what you're saying?" another man burst out. "Twenty inches is more than

some of the country gets in a year!"

"True. We can anticipate major flooding over the entire watershed. The problems involved in calculating probable runoff rates are complicated by our lack of experience in dealing with volumes of water of this magnitude, but it seems plain that the entire continental drainage pattern will be overloaded, resulting in some rather interesting erosional dynamics. For example —"

Just a minute," a congressman interrupted. "Just how long is this rain supposed to continue?"

For the first time the weatherman looked faintly troubled. "Insofar as we've been able to calculate on the basis of limited data," he said, "there's no contra-indication for indefinite continuation of the present pattern."

"What does that mean?" someone demanded.

"It means," the congressman interpreted, "that as far as they can tell, it's going to keep on raining forever."

"That's ridiculous," a cabinet member said. "A storm draws its power from the released heat of evaporation; there's a definite limit to the size any weather disturbance can grow to. I should think it would be a relatively simple matter to calculate the theo-

retical limit, based on known factors of incident sunlight and so on."

"Normally, that would be true, Mr. Secretary. But the theory doesn't seem to apply in this case. You're aware that there seems to be an anomalous situation as regards displacement of sea water: the flow into the area of the whirlpool appears to be balanced by no corresponding outflow, even at great depth. The same is true of air volumes. It also seems to apply to the energy balance."

"Translation, please?" a peppery man spoke up.

"Easy, Homer," the congressman said. "Water and air are going in and none is coming out. And the energy being expended by the storm exceeds that available from all known sources. Right, sir?"

The weatherman looked pleased. "Quite correct."

"So — what are we doing about it?"

The meteorologist's expression changed to one of mild surprise.

"Doing?" he echoed. He shook his head. "One doesn't 'do' anything about weather, Congressman. One simply observes it!"

"For God's sake, man!" A well-braided naval man spoke up. "You don't mean to tell us that we're going to just sit here and

watch the country blow away — if it doesn't wash away first!"

"It's the function of my department to report the weather, Admiral, not to control it."

For several minutes the room was filled with emotional voices, all talking at once. The congressman rose and pounded the table for order.

"This is getting us nowhere, gentlemen," he said. "What about it, sir?" he addressed the meteorologist and his aides. "Is there any action — any measure at all — which you gentlemen can recommend? Seeding? Nuclear dissipation? Anything at all?"

The weathermen were shaking their heads before the question was out. There was a moment of silence.

"I heard something," an Interior Department spokesman said hesitantly. "Probably just a crank notion."

"Well?"

"One of our engineers — Hunicut is his name, I believe — has suggested that the storm is tied in with the APU power broadcast. He claims that he's pinpointed a massive power drain right on top of the storm center. As a matter of fact, he submitted a proposal direct to the White House that the system be shut down."

"Well!" the congressman barked. "Maybe he's on to something."

Let's check it out. God knows the time has come to grasp at straws.

"Well, an idea like that —" The Interior man spread his hands. "It can hardly be taken seriously."

"There's only one way to check it out," a White House spokesman said. "That's to shut down the system. And we can't do that." He outlined the situation as it affected the Caine Island Prison.

"So — the prisoners riot in the dark. I think we can survive that."

"There's more to it than that!"

"I know — the reputations of the visionaries who poured ten billions of Federal funds into the power-from-the-air scheme. But they'll just have to suffer, as I see it. I say shut down and observe the results."

"Congressman, that will take an executive order."

"Then let's get it."

There was a general mutter of agreement. The Interior man left hastily, shaking his head. The cabinet member buttonholed the congressman.

"This is all very well, Herb," he said in a low tone. "But what if the idea's as silly as it sounds? What do we do then?"

The congressman patted the air. "Let's worry about that when we get to it, eh, Homer? Right now we'd better go see the President."

Lokrien comes up across the rocks, halts before the fire-blackened entry of the ship, from which a wisp of smoke drifts past his head.

"Xix — what happened here?"

"A sabotage by a Fleet officer," the ship's voice says. *It sounds weak and thin.*

"Fleet officer?" Lokrien looks out across the dark jumble of rock. "Thor — are you out there?" he calls.

*There is no answer.*

"I went out to look for you," Lokrien shouts into the darkness. *When I returned, your people attacked me like a pack of wild krill. Without the Y-field I'd have been killed."*

*A vague shape moves in the darkness. It is Gralgrathor, almost unrecognizable with half the hair burned from his head, his face blistered, his garments hanging in charred rags.*

"Thor! What in the name of the Nine Gods —"

Gralgrathor leaps, swinging his hammer. Lokrien jumps back, avoiding the clumsy blow.

"Thor — have you gone mad?"

Gralgrathor snarls and moves to the attack. Lokrien avoids his rush, watches him fall.

*The voice of the ship, faint and unnoticed, speaks across the darkness: " . . . fire damage to lift coil chamber. Assault capability: negative. Defensive capability:*



minimal. Power reserve level: critical. Category One emergency measures are no win effect. Captain-Lieutenant Gralgrathor is identified as the saboteur. . . ."

"You've wrecked my ship!" Lokrien cries. "Why? For the love of Ysar, why? Did you have to drag me down into your exile too?"

But Gralgrathor makes no answer. He struggles to rise, falls back.

"Attention, Commander!" the voice of the ship echoes across the tumbled granite, among the trees. "I will execute the traitor for his crime against the White Fleet!"

"No!" Lokrien approached Gralgrathor. "There has to be a reason, an explanation," he pleads. "Tell me, Thor!"

Gralgrathor sways, on hands and knees. Red hate looks out of his eyes.

"I'll kill you," he snarls. "Before I die, I'll kill you."

"Commander," the ship calls. "Men approach!"

"Your mob," Lokrien says to Gralgrathor. "The same crew you set on me before!"

"I will deal with them, Commander," says the ship.

"Thor, go down to meet them. Stop them, if you want to save their lives. Xix will kill anyone who comes close."

In silence, Gralgrathor climbs

to his feet. Lokrien watches as he moves off like a crushed insect to disappear among the trees. Then he turns to the ship.

"Xix," he says in a broken voice. "What will we do?"

"We will survive, Commander," Xix says. And one day we will right the wrong that was done to us this night."

## VIII

"This item you asked for an analog check on, Governor Hardman," the FBI Data Technician said hesitantly on the gray-line phone. "I'm afraid I haven't come up with anything significant. I've made runs keyed to every variable in the profile just as you asked, but I can't tie it to anything in the Main File."

"Damn it, man, here's a prisoner with no record of trial and sentencing — nothing but the mere fact of his presence here as evidence of any crime! There's got to be an explanation!"

"You've apprehended him?" the FBI man asked quickly.

"No, and the way it looks now, I'm not likely to! And if he is picked up, what the devil grounds do I have for holding him? I don't even know what he's supposed to have done, except by rumor!"

"It's a weirdie, all right, Governor. I'd like to help you. If

GALAXY



you could give me some idea what it is I'm looking for — "

"I don't know! That's why I asked for the complete analysis on the few facts I have on the man, in hope you'd turn up something. I need a clue, a foothold. Damn it, in this day and age a man can't have lived a lifetime without leaving some record, some trace, somewhere!"

"Well, after all, Governor, if he's been in prison for over thirty years — "

"Nonsense! It's a case of mistaken identity. Grayle's no more than forty years old at the absolute maximum. But even if he were fifty, that would still make him a Federal convict at fifteen! It's nonsense!"

"Governor . . . there is one little datum that popped up. Nothing, of course, but I may as well mention it . . . "

"Well?"

The technician gave a self-conscious laugh. "The tie-in, I'm sorry to say, is more apparent than real. You recall the confusion with the Civil War trial record linked to your man? I fed that in with the rest — and the computer cross-referred to an item that came in just about three hours ago. It seems that a doctor out in St. Louis reported removing a bullet from a man's abdomen last night. The bullet was identified as something called a

Minie ball, a type of solid shot used by the Army in the 1860's. In other words, during the Civil War."

Hardman made a rasping noise of pure frustration. "Civil War my left elbow! What is this, Tatum, some kind of in-group joke?"

"The computer is very literal-minded, Governor."

"Any description of this chap in St. Louis?"

"Yes, I have it here . . . six-three, two-ten, blue eyes, gray hair, reddish stubble, well set up and extremely scarred — or rather there seems to be a little uncertainty about that last item. The doctor reported that when he first examined the patient, the man exhibited a number of prominent scars on the face, neck, back, chest, arms — all over, virtually. But an hour later, the scars were gone. Curious, eh?"

Hardman was gripping the telephone hard. "Where is this man now?"

"That we don't know."

"Tatum, you know people. Can you put out a pickup order on this man to the St. Louis police? Quietly? And preferably anonymously."

"You see a connection?"

Hardman laughed shortly. "Grayle is over six feet, gray-haired, redbearded. He's reported to have shattered a pair of

chrome-steel come-alongs with his bare hands, and he tore the locking bars off an armored car — also bare-handed. Either that, or he was carrying a three-quarter-ton jack-hammer under his shirt. Now we have another big, gray-haired fellow out in St. Louis whose scars miraculously heal in an hour. He was carrying a Civil War bullet. Grayle's linked to a Civil War killing. Certainly I see a connection; they're both impossible!"

"I see what you mean, Governor. I'll get right on it."

At the upper Pasmaquoddie Power Station, Chief Engineer Hunnicut paced his spacious, air-conditioned, indirectly lit, sound-proofed, gray-nylon-carpeted office. Beyond the wide thermopane windows the storm raged unabated. In fact, it seemed to Hunnicut, it had gained in ferocity in the last hour.

He paused at his desk — wide, highly polished, genuine mahogany — and flipped up the inter-com key.

"Sam, how about that refinement on those loci?" His voice was brittle with strain.

"I was just going to call you, Mr. Hunnicut. Something odd here. The smaller one is tricky, very faint, but we've narrowed it down to a point in the mountains

just north of here. Within ten miles, possibly. The big one is pulling a lot of power, and we were able to cut it closer. It's about twenty miles — give or take five miles — off the west shore of Somerset Island, dead on the reported position of the storm center."

"Sam, what are the chances of an error in that placement?"

"Well, I talked to a buddy of mine at Weather in Washington about half an hour ago. He confirmed the plot on the whirlpool and swore it was accurate to inches. It hasn't moved since it was first spotted last evening. As for our fix — I'll stake my job on it. I said within five miles, but off the record I think we're within a mile. Kind of funny, eh, Mr. Hunnicut? What do you think—"

"Stand by in the main generator room, Sam. I'm coming down."

He pressed another key, spoke briskly to his secretary: "Myra, go ahead with the calls I taped earlier." He flipped off the set and left the office. In the corridor, the deep-bellied thrumming of the big generators buried in the rock below vibrated in the air, penetrating to the bones. It grew louder as he rode the lift down, passed through the intervening doors, became a solid thing as he entered the high, wide chamber almost filled by the big

machines. Sam Webb was over by the big board, looking concernedly at the rows of three-inch dial faces. He turned as Hunnicut came up beside him.

"The curves are still upward," he said. "Leveling in about twenty-four hours, I'd guess. By that time, the big baby off Bermuda is going to be pulling a whale of a lot of power, Mr. Hunnicut."

"It would be, if we waited that long," Hunnicut said.

Webb frowned questioningly.

"We could shut down, Sam. We can use regular emergency procedures: shunt what we can into the Northeast Distribution Net and bleed the rest into the Erie Storage Facility. What that won't handle we can spread out over the Net links, let Central and Southeast handle it."

"Mr. Hunnicut — it's none of my business — you're the boss — but have you got an okay from higher up on this?"

"Don't worry, Sam. I'll take full responsibility for any orders I give."

The counterman at the all-night beanery waited until the quiet man in the gray slicker had seated himself and looked over the menu chalked on the dusty blackboard above the backbar before he lowered the newspaper and sauntered over. He shifted the broomstraw to the

other corner of his wide mouth.

"Yeah?" he inquired.

"A man," the customer said. "Six-three, gray hair, blue eyes, husky build. Possibly scars on his face. Wearing a gray single-breasted suit with dirty cuffs. Seen him?"

The counterman's head jerked. He spat out the straw. "Who, me? I ain't seen nobody." He grabbed a yellowish rag from under the counter and began wiping the clipped formica.

"Business is slow, eh?"

"Yeah."

"But not that slow. He was seen coming in here." The man in gray slipped a leather folder from an inside pocket and flipped it open to expose a small gold badge.

"I ain't seen nobody with no scars," the counterman said. "I don't care what some clown says he seen."

"What have you seen?"

The man lifted his bony shoulders. "Couple hackies." He paused.

"Go on."

"There was a mug with gray hair. You know, premature like. Big bimbo. But a kid, young, no scars on him; hell, he prob'ly don't even shave."

"When was he in?"

"A couple hours ago. Hell, how do I know?"

"Any idea where he was going when he left here?"

"What do you think I am, an information bureau? I don't know the guy, never seen him before. I'm gonna ask him where he goes next?"

"Answer the question."

"No, I don't know where he was going."

"He left on foot, or he had a car waiting?"

"He . . . didn't have no car."

The man in gray smiled gently.

"You sure about that?"

"Maybe he picked up a hackie here. Yeah, I remember now. He come in here to tap a hackie eating here. Tried to start trouble. I hadda throw the both of 'em out."

"Where did he want to go?"

"New Jersey, I guess. He said something about Princeton."

The man in gray nodded and stood.

"Thanks very much, Mr. Schutz" he said. He paused at the door and glanced back. "By the way — the business with the blackboard is cute, but I think you'd better close your book down. The cops are on to it."

The counterman's look followed him as he turned up his collar and stepped back out into the driving rain.

"It's certainly worth a try, Mr. President," Congressman Doberman said solemnly. "The Caine Island aspect of the thing is un-

fortunate, but in light of the situation — "

"If there's a legitimate technical basis for the decision to shut down the power broadcast, I'll do it, Herbert. What I'm questioning is the soundness of the proposal." The President looked at his special assistant. "What about it, Jerry?"

"Sir, Hunnicut himself is the leading authority in the field of broadcast power. The technical people I've coordinated with are all either students of his or his former teachers. All of them have the greatest respect for his judgment."

"Now, just a minute, Jerry," Secretary Tyndall cut in. "I have a few scientists of my own, I'll remind you. On my staff, that is — "

"What do *they* advise, Bob?" the President put in smoothly.

"They assure me that the idea is fantastic, Mr. President! A piece of hysteria, pure and simple! I'm not saying this scheme was set in motion by anti-transmission forces, mind you, but if it had been, it couldn't have been better planned to undermine Congressional confidence in the future of broadcast power!"

"All right, Bob, I understand your problem. You can set your mind at rest. No one's going to blame you."

"It's more than that, Mr. Pres-

ident," Doberman said. "It's not face-saving I'm concerned about now — not entirely, at least. A thing like this can be the straw that knocks the program out for twenty years. We can't afford that. We need APU."

"All right, Bob, I believe you. And I trust you'll believe me when I say I'm with you. But at the moment we're facing a grave situation. If we have the power to avert disaster, there's no question that we must do so."

The secretary nodded reluctantly.

"Very well, Jerry. Don't bother with channels. Get the power station on the line, direct."

The aide spoke quietly into the grayline phone. The others waited in silence.

"Mr. Hunnicut? This is the White House calling. . . . Yes, the White House — Mr. Hunnicut, personally, please. . . ."

Jerry paused listening. His eyebrows went up.

"One moment," he cut in sharply. "Who is this speaking, please? Mr. Webb? Mr. Webb, I'm calling for the President. You are — please don't interrupt, Mr. Webb — you are instructed to shut down power broadcast immediately, until further notice. I repeat, you are instructed to shut down at once. This will be confirmed by TWX immediately. That's correct, Mr. Webb. Thank

you." Jerry cradled the phone. The President was looking at him questioningly.

"Power is off, Mr. President," Jerry said, looking uncomfortable.

The President nodded. "That's done, then, gentlemen. Thank you for coming over. Please keep me closely informed of any results — and Bob, I'd appreciate it if you'd speak to Ray Cook personally, offer any assistance we can give. I suppose it's possible to get some sort of portable power in to Caine Island."

After the others had left, the President looked at his aide with a faint smile.

"Mr. Hunnicut was a mite impatient, was he, Jerry?"

"His deputy was trying to tell me something, Mr. President," Jerry said, looking his chief in the eye. "I didn't catch what it was."

The President nodded. "You're a good man, Jerry," he said.

"You're a good man yourself, Mr. President."

"I got through to the White House, all right, Mr. Hunnicut," Sam Webb said. "Or rather — " He shook his head, but the dumb-founded expression remained on his face. "They got through to me. It was a Presidential order to pull the transmitters off the line."

Hunnicut smiled slightly, his

eyes on the panel before him. The sound of the generators had changed; distantly, heavy relays could be heard, slamming closed. Needles nodded and wavered on the big dials. Hunnicut's smile faded, was replaced by a frown. A side door burst open, and simultaneously the telephone clanged harshly.

"Mr. Hunnicut! Big trouble! The transmitters have switched themselves back on again! The whole relay bank has gone nuts! Circuits are welding themselves, fuses are arcing over —"

Webb grabbed up the phone. "Yes — all right, we know about it, we're on the way!" He slammed the instrument down, at a run followed the others from the room.

Ten minutes of frenzied effort by a dozen engineers yielded no result. Power continued to pour from the generators into the giant transmitting coils.

"Look at this," a man called from a repeater board. "We're still being drawn on for a full load — but only two stations are drawing power." His voice faltered. "And those two are . . . are. . . ."

"I don't get it, Joe! What the hell does it mean?"

"Simple," Hunnicut answered. "The outlaw demand points are still drawing power — our total output, now. And they're going

to keep on drawing power whether we like it or not!"

Max Wiston, number P978675-45, who had three weeks before completed the first decade of a life sentence to Caine Island for rape and murder, was sitting on his bunk in cell 911-m-14 when the lights went out. At the same instant, the music of Happy Dan and his Radio Folks faded; the soft hiss of air from the ventilator died into silence.

For all of ten seconds, Max sat unmoving, eyes wide open against the darkness, ears straining for a sound. Then a yell sounded from somewhere nearby:

"Hey, what's with the lights? I'm try'n'a read!" The next instant, a bedlam of calls and yells had broken out. Max rose and groped across the cell, hands outstretched. He put his face against the bars; no faintest glimmer of light was visible anywhere. There were screams mingled with the yells now; to a latent claustrophobic, the total absence of light could be as confining as a tomb.

Max stood by the cell door, his mind racing. He had known from the moment that the sentence was pronounced on him that he would never spend the rest of his life in prison. He was a man who had lived out of doors, on the water, gone in boats, known the open sea. One day he



would regain the life that the slut had taken away from him. In the meantime, he would go along quietly, pretend to accept his fate — and wait. And one day his chance would come.

And now it had. He knew it. He could smell it in the air. All he had to do was think, make the right moves, not panic, not louse it up. Think. Think, Max.

Lights off, air off, radio off. Okay. No power. There was a storm, lines were down. . . . But there was something about switching to a new system, broadcast power. Maybe that was it. It hadn't worked out, new stuff was always developing kinks. So all right, the details didn't matter, the point was — no power. Meaning no alarm bells, no intruder circuits, no timed locks on the cell-block interlock. . . .

A dazzling thought entered Max's head. Gingerly, delicately, he reached through the bars, felt along the cold metal for the outer manual latch. Gently, he grasped it; carefully, he turned it.

The door swung open.

For a moment, Max stood in the darkness, smiling. Then he stepped out, paused to orient himself, and started toward the guard post at the end of the passage.

"That's right," the service station attendant said. "Same car; you wouldn't forget

that one in a hurry. Two men in it; the driver was a rough-looking character, flat nose, bullet-headed, you know. Had on a yellow and brown mackinaw. The other guy . . . well, I don't know. He was asleep; didn't say anything. What I figured, he owned the car, and this other guy was his chauffeur — only he didn't look much like my idea of a chauffeur. Maybe — hey! Maybe the guy stuck him up, took his car. Maybe the guy. . . ." The attendant swallowed. "Maybe the guy was dead!"

"If he were dead," the man in the tan car inquired, "why would the murderer carry him around with him?"

"Yeah, it don't make sense. Anyway, now I remember the guy said something." The attendant sounded disappointed. "Just as they were pulling out."

"Do you remember what he said?"

The man lifted his cap to scratch his head. "Something about, 'We're getting close. Steer a little more to the east. . . .' Something like that."

"And this was how long ago?"

"Heck, not more'n fifteen, twenty minutes."

"Thanks." The man in the tan car pulled away from the pumps. As he accelerated to join the fast lane, he was speaking urgently into a microphone.

When Falconer woke again, the big car was bumping over a rough-surfaced road. The wind was still beating at the car, but the rain had slackened perceptibly. He sat up, alert.

"Where are we, John?"

"West of St. Paul a few miles," Zabisky said. "I had to get off the interstate?"

"Why?"

"You said to steer east. What am I going to do, cut out cross-country?"

Falconer nodded. "I'm hungry," he said. "Stop at the first eating place you see, John."

"Geeze, you can sure pack it in, brother! Sleep and eat, that all you do, fer Chrissakes?"

"I'm making up for lost time, John. I've been off my feed, you might say."

"There ain't no eating joints along here. Cripes, the lousy road ain't even maintained. I ain't seen a house for ten miles. And this lousy rain ain't helping any."

Zabisky hunched over the wheel staring out into the rain, sweeping in almost horizontal gusts across the road. "Anyways there ain't much traffic. Most people got better sense, in this weather."

Falconer glanced at the outside mounted rear-view mirror, saw a flash of lights, far back.

"How long has that car been behind us?"

The driver looked up at his mirror. "Geeze, it beats me. I ain't seen him."

Two miles farther, the car behind had closed the gap to half a mile.

"Speed up a little," Falconer said.

"Hey," Zabisky said. "Is that guy tailing us, or what?" He looked sideways at his employer. "What is this caper, anyway, Mister? I told you I don't want to get mixed in nothing shady."

"We're doing nothing illegal, John. See if you can gain on him."

"I'm doing all I can, fer Chrissakes! Fifty in this soup is like a hundred and ten!"

"He seems to be bettering that."

Zabisky swore and accelerated. The low-slung car veered from side to side of the single-lane road, bucking the squall winds. Rounding a turn, it broke away, went into a tail-wagging slide before the driver wrenched it back into the center of the road.

"Ha! Our pal back there don't like the pace," he said. His spirits seemed to be rising under stress. The Auburn roared ahead on a long straightaway. The speedometer needle reached sixty, crept toward seventy. Belatedly, the headlights of the car behind them appeared around the bend.

"Oh-oh," Zabisky said, watching in the mirror. "He's trying to

straighten out the curve!" The following lights veered suddenly, swept across the treetops and went out.

"He bought it," Zabisky said. "Scratch one tail."

"We'll have to go back," Falconer said.

"Hah? I thought —"

"Somebody may be bleeding to death, John."

Zabisky brought the car to a halt.

"Who were they, anyway? Cops?" he asked.

"I don't know, John."

"Why they tailing us?"

"I don't know that, either."

For a smart guy there's a lot you don't know."

"Nevertheless, I'm telling you the truth. Let's get moving, John."

Muttering Zabisky backed, turned, drove along the narrow road at thirty. The headlights showed up a tan-colored car upside down in the drainage ditch. The front wheels were still spinning slowly.

"Flipped neat," Zabisky said, pulling over so as to illuminate the wreck with his headlights. Falconer opened the door and stepped out into the gusting rain, went across the strip of sodden turf to the car. It rested on its top in a foot of muddy, swirling water. Inside it a man was slump-

ed against the cracked glass of the windshield like a bundle of old clothing. His face was half under water.

"Cripes, the poor boob'll drown," Zabisky shouted over the drumming of the storm. Falconer stepped down into the water and tried the door handle. It was jammed tight. He twisted harder. The metal yielded, broke with a sharp sound.

"Jeeze, the cheap metal they use these days," Zabisky said. He splashed around the front of the car.

"We got troubles," he called. "She's tight against the bank. This door ain't opening no matter what!"

Falconer felt along the edge of the door. It was sprung sufficiently to allow him to insert his fingertips under it. He pulled gently. The double metal flange folded back without budging the door.

"Hey, that guy inside ain't going to last much longer," Zabisky called. "That water's coming up fast!" Maybe we can bust out the windshield — but I'd hate to see the mug's face after we finish."

Falconer went to one knee, exploring the edge of the door low water level. It was twisted in the frame, exposing one corner. He thrust a finger through, levered the door outward far

enough to get a two-handed grip. He braced his feet and pulled. The metal bent slowly, then folded back before springing open. Falconer reached inside, eased the injured man out onto the muddy bank. He was breathing noisily through his mouth. Water ran from his nose. He coughed, then breathed easier. Except for a swelling on his forehead, he seemed to be uninjured.

As Falconer stood, he caught sight of Zabisky's face. The swarthy skin looked yellowish in the harsh beam of the headlights, the stubble on the big chin stood out like grease paint. He was shaking his head in emphatic denial.

"I never seen nothing like that," he said, staring at the ruined door. The latch dangled from the torn metal of the jamb. "I seen strong guys, but nothing like that. What are you, Mister?" His eyes met Falconer's.

"I'm a man with strong hands, John. That's all."

"Uh-uh," Zabisky said. "Nobody's got hands like that —" He broke off as shadows moved. He whirled, almost losing his balance on the slippery slope. A car was approaching from the south.

Falconer went flat against the bank. The oncoming car slowed, halted twenty feet away. A spotlight speared out to highlight Zabisky.

"Hold it right there," a voice called. Doors opened and slammed. Two men came forward, bulky in shiny rain gear. Zabisky stood with his hands held clear of his sides, not moving, watching them. One halted ten feet away, holding a heavy pistol trained on the driver's chest. The other came up from the side, reached under the mackinaw to frisk the man.

"Hell, this ain't the guy," the man with the gun said. Light winked on the badge of his cap.

The other man was looking at the overturned car. "What happened?"

"He spun out," Zabisky said. "The damn fool tried to take the curve at seventy — in this soup!"

"Yeah? Where do you tie in?"

"I come back to see to the guy."

The man who had searched him pushed him, staggering him. "I like it better you ambushed him. What did you do, shoot out a tire? Or feed him a pill through the windshield?"

"Where's your partner?" the other man said. "Talk it up, Hunky. We don't like cop-killers a lot, even Federal cop killers."

"He ain't dead!" Zabisky started and was cut off by a short, powerful right jab to the midriff. He bent over, hugging himself.

"How do you like that, Roy, a glass gut," the cop with the gun said.

"He's laid out over there," Za-

bisky grunted, forcing himself upright.

The unarmed cop went over, looked down at the man lying on the shoulder.

"He's breathing," he called. He came back to stand before Zabiskey. "Why'd you pull him out?"

Zabisky squared his shoulders. He stared into the light at the shadowed face of the policeman.

"Go knit a sweater, copper," he said. This time, as the cop's fist shot out, Zabisky half-turned away, caught the wrist, yanked the man to his chest, levering the elbow across his ribs.

"You," he said to the other cop. "Drop it or fix your partner so he has to drink his beer through a straw."

The gun held steady on Zabiskey. The cop twisted his mouth in a grin-like grimace. "What if I say tough lines, Rube? What's an arm to me, compared to a slug in your kneecap — especially if it's some other guy's arm?"

Zabisky backed, dragging the policeman with him. "You better be good with the rod, copper. Otherwise your pal stops the slug."

"Could be, Rube. Let's find out." The cop took up a pistol-range stance, body turned sideways, gun arm straight out, left hand on hip, leaning back for balance. He sighted carefully, still grinning —

Falconer came up out of the

ditch in a rush, swept up the gunner and in a single movement threw him clear across the road to crash through unmowed brush, sending water splashing high. He gripped the coat-front of the other man, lifted him, shook him gently.

"See to this man," he said, nodding toward the accident victim. "Come along, John. We've wasted too much time here." He dropped the policeman, who sprawled where he had been deposited. Zabisky hesitated a moment, then went quickly to the car, slid in under the wheel. He watched Falconer get in, slam the door.

"Mister — I must be nuts, but I kind of like your style." He started up, pulled off down the wet road with an acceleration that pressed both men back against the solid leather seats.

Grayle watched the instruments, holding the small aircraft at ten thousand feet, the airspeed at three hundred and forty. He paid no attention to the compass. Sitting in the seat before him, Anne stared out at the night, as opaque as black glass. The ship bucked and pitched, dropped abruptly, surged upward, rocked. The whine of the engines was an unending scream, like a cat in a fire.

Grayle was frowning, his head tilted. At the edge of hearing

there was a sound — a faint, rumbling undercurrent to the background din of the roaring turbo-probs. It grew steadily, became a roar. Off the port wingtip, slightly ahead, an orange glow appeared, winking fitfully, sliding closer. A point of green light became visible, then a white one, above and behind it. Vaguely, Grayle made out the metallic shape behind them.

"It's a jet fighter plane," Anne gasped. "It's pacing us."

Slowly, the jet moved ahead. Just before it reached the limit of visibility, it banked up, showing its port wingtip light, and whipped directly across the course of the smaller plane. Grayle fought the controls as the craft leaped and bounced in the slipstream. Anne pointed. A second jet had appeared on the right.

"Hold on." Grayle said. He threw the control stick sideways and applied full rudder, at the same time cutting the throttles and rotating the engines to the vertical. He feathered the propellers as the small plane veered sharply to the left and dropped like a stone. The altimeter wound down the scale, to nine thousand feet, eight, seven. . . .

At four thousand feet, he engaged the props, applied power. The engines shrieked; the fall slowed. He leveled off at two thousand feet indicated.

AND NOW THEY WAKE

Grayle worked the controls, rotating the nacelles for forward thrust. For half a minute the plane streaked eastward in total darkness. Then the plane leaped as solid sound erupted around them. With a long, shattering roar, one of the jets flashed past. In the brief glow of its tailflame, wisps of fog whipped and tattered, ragged sheets of rain whirled, dissipating. Grayle put the nose down and poured on full power. At under one thousand feet he leveled off again. For an instant, through a break in the enveloping mist, he caught a glimpse of a vague shape flashing past below. He pulled the nose up, throttled back, glanced at the altimeter; it indicated nine hundred feet.

"Anne! On what principle does this altitude indicator operate? Reflected radiation? Or —"

Something dark loomed up before them; Grayle whirled to Anne, caught her in his arms, twisted to set his back against the padded panel as with a rending impact, the plane struck.

*"Emergency measures must be undertaken at once," the ship says. "No time must be lost in returning to the battle line. I am operating on Final Emergency Reserves now. Unless my power coil is re-energized promptly, I will soon drop to a sub-alert state."*

"It's going to take time, Xix," Lokrien says. "I can't leave you lying here exposed, to be picked over by every wandering souvenir hunter who comes past. Can you quarry enough stone to conceal yourself?"

"The energy expenditure will leave me drained," the machine says. "But I compute that it can be done."

Lokrien gathers a few items into a pack, leaves the ship.

"Commander," the voice of Xix calls.

Lokrien looks back to the sleek-lined hull.

"I will be unable to speak after this expenditure of energy. Farewell. Remember that I will be waiting beneath the rock, confident of your return."

"You were a good ship, Praxixysaran the Ninth. You will be again, one day."

Behind Lokrien energy thundered. Bolts of blue-white fire rayed out to cut and lift great slabs of granite. When silence fell, nothing was to be seen but the tumbled rock, swathed in settling dust.

## IX

"Let me get this straight, Mr. Hunnicut," the President said carefully. "You're telling me that the sole result of the shutdown of the power broadcast

is the plunging of seven Federal installations into darkness? That two unauthorized and unidentified demand points are continuing to draw power?"

"That's about it, sir. Six of the installations are on emergency power or back on the New England Net. All but Caine Island."

"Perhaps I'm tired, Mr. Hunnicut. How can these two bootleg receivers continue to draw power if you're no longer generating power?"

"Sir, that's the point I've been trying to explain. The station is still generating — and still broadcasting. When I shut down transmission — or tried to — the breakers arced over, welded the circuits open. I'm broadcasting whether I like it or not. And the same goes for the generators. I can't shut them down. The last man I sent in to manually disconnect is in the infirmary now, undergoing artificial respiration. We can't even get into the generator room. The whole thing is hot."

"Mr. Hunnicut, it appears to me matters at your station have gotten badly out of hand!"

"Mr. President, as chief engineer here I take full responsibility. But what's going on is abnormal — fantastically so! I don't pretend to understand it, but I can assure you that this is more than just a simple malfunction. Some-

one — or something — is manipulating the station."

"Mr. Hunnicut, this is not the time to slide off into mysticism! I want the broadcast of power from your station terminated at once, by any means at your command. I hope that's quite clear?"

"Yes, sir, but —"

"That's all, Mr. Hunnicut." The President's face was dark with anger as he racked the phone. He swiveled on the men standing beside his desk.

"General," he addressed a compactly built officer in Army green, "how long will it take you to move a battalion of troops into the Upper Pasmaquoddie Station?"

"Two hours from the moment you so order, sir."

"Better get moving, General." He turned to a lean, white-haired man in the self-effacing gray. "Mr. Thorpe, have the personnel you've selected stand by to cooperate with the Army as we discussed. And in the meantime, let me know the instant your instruments indicate that my instructions have been complied with." The physicist nodded and scurried away. The President looked at the Secretary of the Interior, pale and owlish in the pre-dawn.

"Funny. I wasn't at all sure that shutting down the broadcast was the correct course, in spite of Mr. Hunnicut's persuasiveness.

But now that Mr. Hunnicut seems to have changed his mind, I'm damned if I'm going to change mine!"

Outside the office of the Governor, Caine Island Federal Penitentiary, a portable, five KW generator chugged stolidly, powering a string of wan lights hastily rigged along the corridor. Inside the office, the governor gripped the telephone until his knuckles paled. He was shouting, not solely because of the booming of the storm beyond the thick walls.

"Possibly you still haven't grasped the situation here, Governor Cook! There are twelve hundred and thirty-one maximum-security Federal prisoners housed in this facility, which is now totally without power and light! The PA system is inoperative. My guard force is scattered all over the prison, without light or instructions. Incidentally, the walls here are rather thick; with the air conditioning equipment inoperative, the air is rapidly growing foul. At the time the power was cut, three hundred of these men were in the dining hall; over two hundred were at their duty posts in various parts of the facility. By the grace of God, almost seven hundred of them were secured in their cells. They are there now — in total dark-



ness. However, the locks in the prison are electrically operated. When the power failed, they automatically went to the open position. When the men discover that — well, I leave the results to your imagination."

As Hardman paused for breath, the voice of the governor of the State of Florida spoke calmly:

"I understand the situation, Jim, and believe me this step wouldn't have been taken had there been any alternative — "

"You sound as though the power were cut intentionally!"

"It was necessary to shut down the transmitter, Jim. The President personally notified me, and believe me, the reasons he gave—"

"Damn the reasons he gave! Unless I have power here in an hour Caine Island will be the scene of the worst outbreak of prison violence in penal history! I'm sitting on a powder keg with the fuse lit."

"That's enough, Jim!" the state governor cut in sharply. "I have my instructions, you have yours. You're in charge of Caine Island, take whatever action is necessary to keep matters under control. That's what you're there for!"

"Now, look here, Governor — "

Hardman's voice faded. He was talking into a dead receiver. He slammed the instrument down, swiveled to stare across the dim-

lyt office at Lester Pale. In the absence of the hum of air-circulators, the wail and boom of the storm seemed really to tear the walls away.

"He hung up on me! After telling me that the power system was deliberately shut down! And I'm supposed to keep matters under control, he says!"

"Sir, I've managed to contact a dozen or so of the guard force, including Lieutenant Trent. He's issued hand torches to the men, and they're out rounding up as many others as they can find. In a few minutes we should have the majority assembled in the barracks."

"And then what? We huddle here and wait for the prisoners to realize they have the freedom of the prison?"

"Lieutenant Trent is standing by for orders, sir," Pale said carefully.

Hardman rubbed his hands up and down across his face, then sat erect.

"Thanks, Lester," he said. "I'm through making a fool of myself now, I hope. All right, we have a situation on our hands. Tell Trent to come up. I suppose our best bet is to concede the entire cell complex and establish ourselves in the Admin wing. We should have enough men to control access — " He stopped talk-

ing, cocked his head. In the distance there was a faint popping sound.

"Gunfire!" Lester whirled to the door as it burst open. A man in guards' blue slammed halfway across the room before he came to a halt, breathing raggedly. He held a pistol in his right hand, pressing the side of the gun against his left shoulder. Blackish-red blood ran down his wrist and made a blot on his sleeve.

"My God, Governor," he blurted. "They've busted out! They shot the lieutenant, and —"

"I'll tell the rest," a hoarse voice said.

A tall, rangy man in prison uniform, with weather-beaten skin and stiff gray hair came in through the open door. The guard issued the gun in his hand was pointed carelessly toward Hardman. The guard whirled with an inarticulate sound, bringing the gun around —

The tall prisoner twitched the gun to cover him, squeezed the trigger. There was a sharp *whac-whac!* The sound of the dope pellets hitting flesh was clearly audible. The guard took a step back with rubbery legs which folded suddenly. He hit the rug hard and lay still.

"I'm not here to mess around, Governor," Max Wiston said. "Here's what I want from you. . . ."

Grayle awoke with his face in icy water, the taste of mud in his mouth. For a timeless moment his mind groped for orientation: listened for the twang of bows, for the boom of cannon, the crackle of small-arms fire; for war-cries, or the screams of the wounded, the clash of steel on steel, the thud of horses' hooves . . .

But there was only the beating of the rain, hitting the mud with a sound like the rattle of muffled drums. Grayle sat up. Pain stabbed at his ribs.

The girl lay across his chest, unconscious. He touched her face; it was cold as ice.

It took Grayle ten minutes to lever torn metal aside, extricate the girl from the shattered craft and carry her across a furrowed quagmire to the inadequate shelter of the trees which the lightning flashes revealed.

He saw the path taken by the plane after it had struck the crown of a tall oak, ploughed its way through massed foliage, shedding wings and empennage in the process, to impact in a ploughed field. It was a miracle the girl had survived.

He was forced to lie down then. The rain fell; the wind moaned in the trees. . . .

Lights, and men's voices. Grayle got to his feet with difficulty, feeling broken ribs grate. A line of lights showed on a ridge half

a mile distant, parked vehicles, he guessed. The lights were moving across the field toward him. He thrust aside the breath-slapping pain, forced his mind to focus on the situation. The path of the small craft had been followed on radar, no doubt. But they couldn't be sure whether he had landed safely, crashed or flown on at tree-top level. And that, perhaps, gave him a chance — if he moved quickly.

He bent over Anne, feeling over her for apparent injuries. There were many small cuts and abrasions, but it was impossible to say if she were seriously hurt. She needed medical help, quickly. He looked across toward the approaching lights — and at other lights, advancing now from the opposite direction. They had thrown a cordon around the area, were closing the noose from all sides. Time was running out. He must slip through them now, or not at all.

He scooped the unconscious girl up in his arms, picked a direction in which the lights seemed more widely spaced, and set off across the boggy ground, keeping his course between two lights. Once he dropped low as the beam of a powerful light traversed the field; but the same light showed him a drainage ditch marked by a growth of weeds. He angled across to it, slid down into

knee-deep, muddy, swirling water. He flattened himself against the bank as two men passed by a few feet above, one on each side of the ditch. He followed the ditch for another hundred feet, then left it and altered course forty-five degrees to the right, toward the road.

He came up onto the pavement fifty yards behind the last of the three cars in line, moved up, keeping to the ditch. Two men in rainproofs stood in the middle of the road between the first and second cars in line. Both carried rifles under their arms. Grayle came level with the last car, a four-door sedan with police markings and a tall antenna. The courtesy light glared as he opened the front door, slid Anne onto the seat. Her head lolled on her shoulder. Pink blood seeped down her wet face. Her breathing was regular but shallow.

Something on the back seat caught Grayle's eye: a snubnosed sub-machine gun. There was also a double-barreled shotgun, boxes of ammunition and a web belt hung with fragmentation grenades. Grayle caught up the belt, strapped it on.

There was a shout; the two men in the road were running toward the car. Grayle crossed the ditch, came up against a barbed-wire fence; he broke the strands with his hands and ran.

Half a mile from the road, he paused, raised his head, pivoting slowly, as if searching the wind for a scent. Then he set off at a steady run to the west-northwest.

Zabisky slowed as the headlights of the Auburn picked up a dark shape blocking the road ahead. He halted twenty feet from a big olive-drab half-truck pulled across the narrow pavement. A man came forward, swinging a lantern. Zabisky lowered the window.

"Road's closed," the man said. He wore a military-type steel helmet and carried a slung rifle.

"What's the matter, road washed out?" Zabisky inquired.

"Convoy coming through," the man said. He huddled in his green slicker, water dripping from the helmet rim. "Say, that's a wild car you got there. What is it, one of them foreign jobs?"

"Naw — made in Oklahoma. Listen, bud, we got to get through, see. We're on like important business."

The man shook his head, shifted the rifle to the other shoulder. "Nothing doing. You got to go back to Pineville, take state road 11 —"

"We got no time for that."

"Never mind, John," Falconer said. He leaned across. "How long will the road be closed, soldier?"

"Beats me, Mister."

"What's going on around here?"

"Hell, who tells us anything? We get called out in the middle of this lousy storm, and —"

"Okay, knock it off, dogface."

Another man had come over from the side of the road, a big fellow with a staff sergeant's stripes on his helmet. "What do you think this is, a boy-scout jamboree?" He turned a black-browed look on the car and its occupants. "All right, you been told. Now get that heap turned around and get out of here before I have to get tough."

Zabisky gave the sergeant a long look.

"How about it, Mr. Falconer?" he said loudly. "You want me to call your pal the general on the car phone?"

Falconer smiled slightly. "That won't be necessary, John. He had been glancing at the map. "Sergeant, it's a long way back to route eleven, and it doesn't seem to be going in the right direction."

"Things are tough all over. Now pull out of here like I told you — and you can call your pal the general and tell him I said so!"

Falconer opened his door and stepped out. The headlights threw a tall shadow across the curtain of rain as he came around the front of the car. The sergeant waited, his thumbs hooked in the

pistol belt around his stomach. Falconer came up to him and without pausing drove his fist in a six-inch jab into the man's belly. The sergeant made an explosive sound and doubled over, fell to his knees. The soldier behind him gave a yell, fumbled his rifle from his shoulder in time for Falconer to catch it, twitch it away and toss it into the ditch. Then he stepped in and slammed a short right hook to the startled lad's jaw. He tumbled down against the side of the car.

"Hey, you didn't need to slug the kid," Zabisky said. He had scrambled out of the car and grabbed the sergeant's pistol.

"A nice bruise on the jaw will help him when he talks to his CO," Falconer said. "Let's go." He started toward the big vehicle blocking the road.

"Hey — where are you going?" Zabisky called.

"This is as far as we can go by ordinary car," Falconer said. "We were lucky to find better transportation waiting for us."

"Are you kidding, brother? Talking about heisting a tank off the Army?"

"You don't need to come along, John. Take the car and go back. But I suggest you abandon it at the first opportunity. The sergeant will give a detailed description of it as soon as he catches his breath."

Zabisky stared at him. "Why not tell me what this is all about? The whole thing is nuts — and this is the nuttiest item yet!" He jerked a thumb at the half-track.

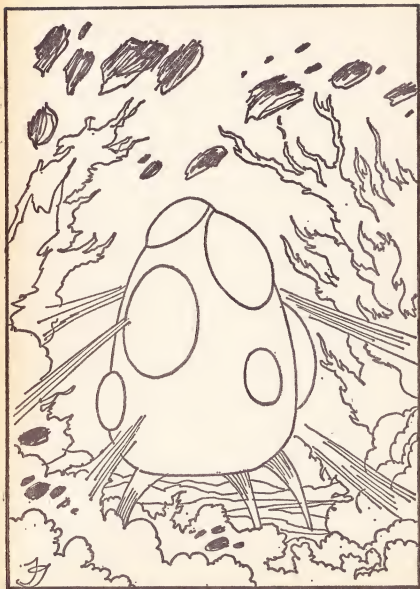
Falconer shook his head. "Good-by, John," he said. "I'm grateful for your help." "

Zabisky made a throwing-away motion. "Forget it," he said. "I told you I was in with you. I ain't quitting now."

Seated in the armored vehicle, Falconer looked over the panel, pressed the starting button. The big engine roared to life. He put it in gear, rolled forward, down into the ditch, up the other side, flattening a fence. He corrected course slightly, then settled down to steering the big machine up across sloping ground to the dark mass of the hills ahead.

Chief Engineer Daniel Hunnicut, his Operations Chief, Sam Webb, and two maintenance engineers stood in the brilliantly lit passage outside the switch-gear room of the Pasmaquoddie Power Station. They were dressed in heavy rubber suits, gauntlets and boots; each carried breathing apparatus. Hunnicut held a black waxed carton firmly gripped to his chest. The engineers clutched coils of heavy wire. Tools were belted about their waists.

"I don't know how much time



we'll have," Hunnicut said into the lip mike inside his breathing helmet. "It's hotter than the main bearings of Hell in there. You all know what to do. No waste motion, no false moves. We place the charges, fix detonators and get out. Any questions?"

The three men shook their heads.

"Then let's go." Hunnicut undogged the heavy door, swung it outward.

A blast of light and heat struck at him, scorching even through the insulated suits. At once the cooling units went into high-speed operation. The chief engineer led the way across the high-ceilinged room, past a gray-bright patch of solidified metal snaking across the floor to the base of the main breaker bank. He placed the carton on the floor; the wax was melting, trickling down the sides. His fingers in the thick gauntlets were clumsy, tearing away the paper wrappings. He lifted out the cigar-shaped charges of explosive, linked together in clusters of four, handed them to Webb, who swiftly inserted them at the previously selected points around the base of the massive apparatus. One of the engineers began attaching linking wires.

The other busied himself laying a heavy cables across the floor.

"That's all of them," Hunnicut said. Webb nodded, tucking the last charge in place. The engineers linked up their wires, rose to their feet, looking to Hunnicut.

"Out," he said. The three men went past him to the door. The two engineers passed through into the corridor. Webb paused to glance back. He froze, pointed past Hunnicut. The latter turned. A coil of smoke was rising from the insulated wire attached to the lowest cluster of explosives. Hunnicut took a step toward it. Webb yelled, jumped after his chief as the wire burned through. The charge dropped to the floor. Hunnicut took a quick step, bent to pick up the smoking charge —

The men in the passage were thrown from their feet by the terrific, booming blast. Acoustical panels dropped from the ceiling. Through the dust boiling from the doorless opening to the switch gear room, they caught a glimpse of a tattered thing of rags that fell away from the scorched and shattered wall which was opposite the entry.

Later examination identified Webb by the fillings in a surviving jaw fragment. No recognizable portion of Hunnicut was ever recovered.

Power continued to flow from the generators to the great antenna arrays of the Upper Pasmaquoddie Power Station.

**F**or two weeks Gralgrathor has lain on a bed of stretched hides in the great Hall of Bjorn-dahl, taking no food, swallowing only the mixture of wine and water that the old crone Siv presses on him before she and the other serving women perform the daily ritual of stripping away the dried, salt-impregnated cloths from the massive burn areas, tearing away along with them the day's accumulation of dead tissue, after which they smear reeking bearfat over him and rebandage him.

On this fifteenth day, he rises for the first time. The servants find him on the floor and lift him back on his bed. Two days later, he walks unaided to the door. Thereafter, he walks a little each day, swinging his arms, stretching the healing skin until the sweat of pain stands across his forehead. During the following days he practices with his weapons until he has regained a measure of his former skill. In the evenings, he roams the hills with the hound Odinstooth at his heels. During this time he says no more than a dozen words a day. He tolerates no reference to his dead wife and child, or to the were demon who slew them on his doorstep.

A month has passed when Gralgrathor climbs the steep escarpment to the ravine where the boat had lain. He finds a vast crater of broken rock, already overgrown

with wild berry vines. He stands, looking down at it for a long time. Then he makes his way back.

The next day, he calls his household together and makes distribution of his lands and possessions among his servants. With only the aging Hulf as companion, and carrying only a leather-thonged hammer as weapon, he sets off on foot along the shore to the south.

## X

**T**hree men sat in a staff car parked beside the road opposite the exotic-looking civilian car abandoned by the hijackers. In the front seat were Captain Zwicky of the US First Army and Lieutenant Harmon, of the Florida State Police, in mufti. In the rear, Sergeant Milton Gassman slumped, his round face waxy-gray in the yellow glow of the dome-light.

"Let's hear that one more time, Gassman," Zwicky said crisply. He spoke loudly, over the drum of the rain. "You and Bogen were manning your posts, a car with two armed civilians drives up, and then — what?"

"The guy tricked me like I said, Cap'n. He talks nice, he looks harmless —"

"You're sure about the face?" Harmon cut in. "No scars? None at all?"



"I'm sure. I tell you the guy was baby-faced, not even sunburned."

"But his hair was gray?"

"Yeah, gray. I thought at first he was blond, but I seen him good in the light. But he's no old duffer. He had a wallop like a mule," Gassman rubbed his ribs gently.

"That's our boy," Harmon said. "I don't know how he covers so much ground so fast, but it's him, all right. We'll get him now. He can't be far from here in twenty minutes. A copter —"

"It's not so easy," Zwicky said. "He took off cross-country, and in this weather no copter is flying."

"Where he can go, we can follow him! He took your half-track. Okay; so we follow him in a half-track."

"Sure. I'll have one here in another ten minutes. That gives your man a half-hour start. If he knows how to handle a track — and I've got a hunch he does — he'll hold that lead. And up where he's headed, there are plenty of places to get lost. He'll ditch the track and —"

"You saying he's too much for the US Army?"

"I'm just saying hold your horses, Mr. Harmon. I had a phone call that told me to take you along, but it didn't say anything about turning command of the company over to you. I have men and equipment to think of,

in addition to a little chore of convoy escort the colonel kind of hoped I'd see to."

"Sure, sure, I'm not trying to tell you your business. But it gravels me to have to sit here and let the cop-killing son of a bitch slip through my fingers!"

"When did he kill a cop? My information was the guy broke out of jail, that's all."

"Okay, you want to get technical, he just roughed up a few cops, maybe they'll live. It's all the same to this boy."

Captain Zwicky looked hard at Harmon. "You take your job pretty personally, don't you?"

"You might say I got a personal stake in this deal."

"Just remember you're a long way out of your jurisdiction. And this is Army business."

"Yeah, sure. I won't get in your way, Zwicky."

"Better make that Captain Zwicky as long as you're attached to my command, Harmon."

Harmon smiled sardonically, sketched a two-finger salute.

"We don't play games with the military courtesies in this outfit, Harmon," the captain snapped. Harmon's heavy face blanked, tried a grin, then a frown. He sat up in the seat, yanked his lapels straight.

"Okay! Excuse me, for chris-sake. I'm not pushing. I'm just along for the ride."

"That's right. I advise you to remember it."

In a heavy silence, they waited for the arrival of the half-track.

Twelve miles to the north-northwest, Colonel Ajax Pyle of the Third Armored Division, First Army, stood with a trio of regimental staff officers in the scant shelter of a big pine tree on the long slope of ground rising toward the blazing lights of the power station half a mile distant. On the road, the convoy with dimmed headlights, stretched for five hundred yards back into the darkness. Cold rain drove at the colonel's face, blurred the lenses of the binoculars he held trained on the power station.

"Everything looks normal, Cal," he said, handing the glasses to a burly major beside him.

"I still don't get it, Colonel," the major said. "Sending a regiment of armor in here . . . what are we supposed to do, guard the place? Take a look and go home? Jesus!" He wiped rainwater from his forehead with a finger and shook his head. "Sometimes I think they're all nuts up top-side."

"I'm in the dark too, Cal. My orders were to position the regiment and stand by, that's all."

"Call this a position?" The major waved at the line of vehicles.

"As far as I know, we aren't expected to attack," the colonel

said with a bleak smile. He clapped the shorter man on the back. "Cheer up, Cal. We all needed the exercise."

"Sir!" The communication tech sergeant was at the colonel's side with a field telephone. "Division on the line."

"Colonel Pyle," the officer said, turning his back to the pelting rain. He listened, frowning.

"Yes, yes. . . . I understand. About ten minutes, I'd say." He looked toward the lights of the power station as he handed the instrument back to the comm man.

"All right, gentlemen," he addressed the officers standing by. "Position your units around the periphery of a half-mile circle centered on the station — guns pointing in. Cal, detach six men under a company officer, have them stand by to escort a party of civilians in." He made a motion of dismissal as several officers started to speak at once. "That's it, gentlemen. Move out."

Accompanied by the sergeant, Pyle walked back to the road, went along the line of looming light and medium tanks to the weapons carrier where his driver waited. At his instruction, the driver turned, drove back to the rear of the column. Three men in civilian clothes and raincoats stepped out of an olive-drab staff car and came over.

"All right, Mr. Crick, gentlemen. We're to proceed." The civilians, two of whom carried heavy canvas equipment kits, climbed into the high-wheeled vehicle. It turned, rolled back up past the column. At the head of the line, two jeeps waited, each carrying four men. They fell in behind. In silence the three cars proceeded along the road, following a gentle curve up the gradual slope. Ahead, a gate flanked by massive brick walls blocked the way.

While the headlights dazzled on the steel panels, two men stepped down and went forward. There was a telephone box mounted on the wall. One of the men, a lieutenant with a slung carbine, spoke into the phone. Almost at once the gates slid back. The men re-entered the jeep and the three-vehicle convoy rolled ahead.

The road led straight up a number three grade to the high, blank walls of the power plant and the towering, light-spangled antenna farm spreading up the hillside behind it. A number of men were standing before the lighted entry to the big building. Pyler halted the ton-and-a-half and climbed down.

"Thank God you're here, Colonel," the first of the men on foot blurted as he came up. "It's been

a nightmare ever since the explosion! Phone out, automatic systems out, instruments out — "

"Hold on, sir," the colonel cut him off. "Better take it from the beginning — and let's get my technical people in on this." He waited until the three civilians had gathered around. By then three more men had arrived from the plant. The rain swirled and churned around them. In the glare of headlights, a million tiny crystalline tulips sprouted on the glistening pavement.

"I'm Prescott, Maintenance Chief," the plant man said. "Hunnicut left me in charge when he and Webb went in with explosives to blast the switch gear out of the circuit. It was all fused down, you know. Wilson went in earlier, and — but I suppose you know about that; Hunnicut reported it. Wilson died, by the way. Anyway, something went wrong, we don't know what. Hunnicut and Webb were blown to atoms. For nothing. Everything's still running full blast."

"You say Hunnicut is dead?" one of the civilians cut in.

"That's right. And Sam Webb, our ops chief."

"All right, let's get down to specifics," another of the newcomers said briskly. "Give us a breakdown on exactly what's been going on here. All we've had is some garbled story that the gen-

GALAXY

erators won't let themselves be shut down."

"That's not garbled, brother, that's the God's truth!" The excited man went on with his account of the events of the last three hours.

The three imported experts listened in silence, with only an occasional terse question.

"Don't know what else to try," Prescott concluded. "At every point where we might have broken the circuits, the gear has fused and the surrounding areas are electrified. Hot as firecrackers! We can't even get close to it"

"Well?" Pyle demanded of his crew. "What about it? If Prescott's right, any ideas you may have had about walking in and throwing switches are out the window."

"I'd like to see some of this for myself," the tallest of the three civilians said. "Not that I doubt Mr. Prescott's word. You understand."

"Go ahead. You'll find just what I said. But for God's sake wear protective gear!"

"Oh, I don't think that will be necessary —"

"Do as he suggests, Mr. Tadlor," Pyle ordered.

With an amused smile, Tadlor complied, donning gear from the kit he carried. His two colleagues did likewise.

"My orders are to stand by outside the building until you gentlemen give me an all-clear," Pyle growled. "Make it fast." He turned to Prescott. "How close can I bring my vehicles?"

"So far there haven't been any manifestations outside the building proper, except at the switch houses," the man said doubtfully.

Pyle gave an order. The cars pulled forward, the men walking beside them. Under the loom of the high portico, they halted. Tadlor and his aides, with Prescott, started up the steps. The doors swung abruptly open. A man staggered out, clutching himself. The sleeves of his shirt were shredded, and blood ran down his arms and dripped from his elbows. There was a scarlet blister as big as the palm of a hand along the side of his neck and jaw.

"Nagle! What happened?" Prescott rushed forward to support the man. Behind him, two



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more men appeared, supporting a limp female form between them.

"The whole place . . . hot . . ." Nagle crumpled.

Tadlor stared at the man, went past him and up the steps, his two men behind him. Prescott called, "Colonel, don't let them—"

Tadlor's hand went out to the door. A blue spark crackled, jumped to meet him. For an instant, a halo danced about the tall, lean man, then he made a comical leap into the air, fell sprawling, clownlike. His two men halted, then ran forward, bent over him. One straightened, looked down with wide eyes.

"He's dead."

"Get him back to the convoy, into a respirator!" Pyler called, motioning swiftly to the armed soldiers from the jeep.

One of the men who had helped the girl from the building turned quickly, caught Pyler's arm.

"Don't try," he croaked. "Too late."

"What do you mean?" Prescott snapped.

"You saw what happened to that fellow." The man tilted his head at Tadlor's inert body.

"But I still have forty-odd people inside!"

"Not any more, Mr. Prescott. You left just in time. The place went crazy a few minutes after you went out. Dick and Van and I were the last to get clear. We found Jill just inside. I think she's dead. And so will anybody be who tries to go into that hell-hole!"

"Into the vehicles, fast!" Pyler snapped. "Everybody!" He waited until the last man was aboard, then climbed into the weapons carrier. Behind him, Prescott leaned forward.

"Colonel — what are you going to do?"

"Tadlor's approach didn't work," he said. "So we'll try more direct methods."

"But — what . . . ?"

Pyler looked back at the man, his eyes wild in a pale, round face. "We'll see what effect a few rounds of 100mm through the front door have on — on whatever it is we're fighting," he finished grimly.

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**BY WILLY LEY**

## **THE DROWNED CIVILIZATION**

People who write regular columns have to accept the fact that they'll get letters; and I get my share. Many of the letters are questions and many of the questions refer to matters of the moment; for example the passage of planetoid Icarus and the flight of *Zond-5* around the moon produced, between them, about a

dozen. But some questions recur without a detectable cause and one of these recurring questions is what will happen to civilization if the polar icecaps should melt.

If those climatologists who claim that the overall climate is growing warmer are right, the question has a certain validity. If the climate grows warmer, some ice will melt somewhere. But it cannot, under any circumstances, be a sudden melting; it must be a very gradual process, taking several centuries.

This is the gist of the answer I recently gave to a worried reader. Since then I have received a fact sheet about the volume of water on earth from the Department of the Interior which enables me to write a kind of outline for a science-fiction story where the ice is melted by some malevolent (or just water-loving) aliens within one year or so. But before we can wax dramatic we need to know the figures involved.

The total amount of water on earth — liquid, frozen or vapor in the atmosphere — has been calculated to be 326,074,000 cubic miles. Of this total, 317 million cubic miles (or 97.2 per cent of all the water on earth) is in the oceans. Inland seas and salt lakes account for 25,000 cubic miles, freshwater lakes and rivers account for 30,300 cubic miles and the water vapor in the atmosphere

is estimated to be the equivalent of 3100 cubic miles of liquid water. An estimated 2 million cubic miles are in the ground as soil moisture, subterranean rivers and lakes and ground water in general.

Now we come to the crucial figures, those for frozen water.

The ice over Antarctica amounts to 6,500,000 cubic miles or just about 2 per cent of the total, while the ice of the Arctic and of all glaciers anywhere equals 500,000 cubic miles, or 0.154 per cent of the total. Much of the Arctic ice is floating ice. Its melting would not influence the sea level, since ice displaces its own weight of water.

So the question concerns mainly the 6.5 million cubic miles of Antarctic ice — incidentally the largest amount of fresh water on earth. Supposing that all of it melts, it will produce about 6 million cubic miles of liquid water which will increase the total volume of ocean water to 323 million cubic miles. (Then the oceans would hold 99 per cent of all the water on earth.) In order to answer the question of what the melting Antarctic ice will do to civilization we must find out how much the oceans would rise and for that we have to know their surface area. At present it is 139.5 million square miles.

Dividing 6 by 139.5 we get 0.043; this is the sea level rise in miles.

One tenth of a mile is 528 feet, hence one hundredth of a mile is 52.8. Therefore we have to multiply 52.8 by 43, the result is 227 feet. This figure looks a bit worse than reality would be, for the calculation has been made as if the oceans were one large basin with vertical walls. In reality the first thing that would happen is that the oceans would increase their surface area by flooding all low-lying land along the coast lines. Increase of their area would, of course, reduce the additional height of the water level. Taking all the factors into account as well as that can be done, we would end up with a greatly changed world map and a sea level about 60 feet higher than it was before the presumed aliens went to work on Antarctica

The continents least affected by the change would be Africa and Australia. Australia would lose land along the Great Australian Bight, its southern coast and a few snippets elsewhere. Africa would lose land along its western bulge and most of the Lybian desert would be flooded. The Nile would be a much shorter river, and Africa would, in all probability, be an island continent, not connected with any of the others. I had to say "in all probability," because nobody can foresee what earthquakes and volcanism might

do. We can be almost certain that shifting loads of water will trigger earthquakes and volcanoes, but so far not enough is known about this to make detailed predictions.

The main inroads of the water in South America would be in the valleys of the Amazon and the Rio de la Plata. South America also is likely to end up as an island continent.

The territorial losses in North America would be large and unpleasant. The so-called Gulf Plain around the Mississippi delta would simply disappear; it would be flooded as far north as the Ozark Plateau. Florida would lose much territory and end up as a group of islands. The Georgia coastline would be flooded. In the north, land would be lost all along the coast. There would be a considerable increase in the area of Hudson Bay, mainly to its west and south. In the west, the Gulf of California would go north and pour into the Salton sea and its surrounding area.

The most drastic changes would be in Europe and nearby portions of Asia. The southeast of England would be gone; an enlarged Firth of Forth would join water with the Clyde, making Scotland an island. Ireland would lose in the west. The Netherlands, North Germany, Denmark and Finland would suffer greatly; and the Rus-



sians would face inroads into their territory both from the south and the north. There would be an enormous inflow into the Mediterranean through the Strait of Gibraltar and the rising waters would spread east into the Black Sea and the Sea of Azov, breaking into land from there to the north of the Caucasus Mountains. The Caspian Sea (now with a water level 96 feet below ocean level) would be filled up and would in turn flood large areas (also below present sea level) to its north. From the north, Russia would be invaded by water on both sides of the Ural Mountains. The outcome would probably be that European Russia would be bordered by the sea in the east, with the Urals as a very long island to the east of the coastline. And east of the Urals, the valley of the River Ob would also be drowned — a situation that may comfort those who wonder whether the Soviets might not melt the Antarctic ice with hydrogen bombs in order to drown much of North America.

Well, this is the picture of the earth if all the ice were turned into water. All the continents would be separated from each other by broad stretches of shallow water. Northern Europe would be an archipelago of a few large and small islands. In the Pacific Ocean, on the other hand,

there would only be a very few islands left — until the corals catch up with the new sea level, that is. However, civilization would not be drowned; it would merely be relocated in a number of places. And if this is a consolation, the climate of many areas that now suffer from very hot summers and frigid winters would be greatly ameliorated.

But after having looked in some detail at the way things might be, let us not forget that all this has little to do with reality. Nobody can — or would, if he could — melt the Antarctic ice. And if a natural process, a generally warmer climate, were to melt it, the melting would be very slow and also self-limiting. Why self-limiting? Because the earth's axis would still be tilted by  $23\frac{1}{2}^{\circ}$  to the ecliptic, and both the Arctic and the Antarctic regions would still have their long sunless nights. The melting process could go on only during the summer months; during the winter (northern or southern) one pole would still be cold, no matter how warm it was elsewhere. And moisture carried by winds over the sunless area would still fall there as snow.

One may make the assumption that in a generally warmer climate the snow deposited during the winter might not replace all the ice that melted during the

summer. But it is a plain impossibility that all the ice on earth can turn into liquid water.

## OUR ZONE OF ACTION

**T**his section is based on one of the letters that came, so to speak, in the wake of the passage of Icarus. The letter said that, according to the *Los Angeles Times*, the asteroid passed at a distance of four million miles. This, my correspondent concluded correctly, was too far away for the earth to influence its orbit. But if Icarus had passed much more closely, wouldn't we have acquired a second moon?

The answer to that question is "no" — but I know from experience that it is very hard to make this "no" sound convincing. After all, our planet exerts a fairly powerful gravitational pull, so if something comes close enough, why doesn't the earth keep it?

The discussion of why it could not has to begin with Pierre Simon de Laplace about one and a half centuries ago. While he was working on his major book, the *Celestial Mechanics*, it suddenly occurred to him that in the vicinity of a planet, the planet's gravitational force must be locally stronger than that of the sun. Laplace called the area where the planet ruled supreme the

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planet's "zone of action"; and he derived a formula for calculating it. The two factors that determine the diameter of the zone of action are, first, the size of the planet, or rather the strength of its gravitational field. The second factor is the distance of the planet from the sun. Since the sun's gravitational field is weakened by distance, the same planet would acquire a larger zone of action if it were moved to a greater distance from the sun.

It follows logically that Mercury must have the smallest zone of action, because it is both the smallest planet and also the one closest to the sun. It also follows that Neptune, though considerably smaller than Jupiter, has a zone of action almost twice as large as that of Jupiter, because it is much farther from the sun.

The table shows the size of the zone action for the planets of our solar system, calculated in accordance with Laplace's formula. It can be seen that in each case this zone is much larger than the distance to the outermost moon of the planet. Even in the case of Jupiter's moon No. IX, the moon is only half way to the edge of the zone of action. Inside this zone, a planet could hold a moon. That, however, does not mean that anything that strays inside the zone of action of a planet will stay inside that zone.

## Zone of Action according to Laplace.

Planet	equatorial diameter (miles)	mean distance from sun (million miles)	radius of zone of action* (miles)	distance of outermost satellite*	
Mercury	3100	36.0	93,000	_____	
Venus	7700	67.3	372,000	_____	
Earth	7920	93.0	558,000	239,000	(our moon)
Mars	4200	141.5	372,000	14,600	(Deimos)
Jupiter	88,700	483.9	29,946,000	14,700,000	(J.IX)
Saturn	75,100	887.1	33,759,000	8,034,000	(Phoebe)
Uranus	32,000	1783.9	30,690,000	364,000	(Oberon)
Neptune	31,100	2795.5	53,569,000	5,000,000	(Nereid)

\* measured from the center of the planet

If Icarus had passed at a distance of only 26,250 miles, counting from the center of the earth, its orbit would have been greatly altered because of this intrusion into our zone of action. It would have been whipped around the earth in a hyperbolic curve, and during the next three weeks or so several computers would have been occupied with the problem of the new orbit. But that new orbit would still have been an orbit around the sun, because Icarus would have escaped from our zone of action again. The reason is that it would have been far too fast to go into an orbit 26,250 miles from the center of the earth.

That distance is, as many readers will have realized, the distance of the synchronous orbit of communication satellites. It is normally given as 22,300 miles because the distances of artificial satellites are counted from sea

level. The reason for doing this is partly for the purpose of making a clear distinction between artificial and natural objects in space; and partly because we naturally think of the distance of an artificial satellite in terms of its distance from us, that is from the surface.

A satellite in the synchronous orbit moves with an orbital velocity of 1.9 miles per second. If it is faster, it will not stay in this orbit but wander away until a balance has been reached. If that body, for example, moved with a velocity of 2.5 miles per second, it would use up some of its velocity by climbing away from the earth and it might then settle in an orbit 50,000 miles out. But if the body moves at that distance with a velocity of 5 miles per second, the earth simply cannot hold it.

(I don't want anybody to write in now to inform me that 5 miles

per second is the "circular velocity" and that the earth could hold a body moving that fast. Circular velocity is a theoretical figure calculated for sea level; our discussion concerns a body moving with that velocity at a considerable distance from the earth where earth's gravitational pull is weaker.)

If a body like Icarus passed the earth at a distance of our natural moon, it would have to move (relative to the earth) with a velocity of less than 0.6 miles per second to become a satellite.

Does all this mean that the earth could never "capture" another body and make it a satellite? It does mean just that. Or it does, let's say, in 999 out of 1000 cases. For the thousandth case, one may invent a complicated maneuver in which the moon cooperates with the earth. If the body, which should be far smaller than the moon, is first whipped around the moon by the moon's gravitational field it might acquire a new orbit in which it is very slow relative to the earth. And having been slowed by our moon, the body would, of course, be inside the earth's zone of action. Since the moon's zone of action is only about one per cent of that of the earth, it does not need any long explanations to show how rare such an event would be.

## THE PHASES OF THE MOON

I never thought that I would have to devote space in my column to a theme as simple as that of the phases of the moon, but one can never think of all the possibilities. One of my readers asked a fairly simple question, and I gave a simple answer which only resulted in confusion. Now if one reader can be confused about something, others are likely to be confused too, so I had better explain in public.

To begin at the beginning, the reader in question had checked the phases of the moon in an almanac. The table there said "first quarter," but the actual moon in the sky, I was informed with some indignation, was clearly a half moon. I replied that that was as it should be and that the "last quarter" was the other half of that half moon.

I still think that this was a simple answer, but the reply I received made me realize that we simply were talking about two different things. My correspondent meant the appearance of the moon in the sky; I was (more or less) talking about the calendar. A long time ago, a rabbi wrote in a book called the *Midrash* that "the moon had been created for the counting of the days" and the terms "first quar-

ter" and "last quarter" may be called the remains of that reasoning.

Fact is that all early calendars were lunar calendars. They originated in the areas we now call the Near East where the seasons are relatively unimportant. On the other hand, the moon is a relatively impressive object, or was in the days before artificial light and equally artificial air pollution. And the moon does display a pronounced periodicity.

Starting with a night when there was no moon in the sky (later called "new moon") the cycle went through the barely visible crescent that grew wider and wider to the point where the moon looked like one half of a wheel. This marked the completion of the first quarter of the cycle. Then the moon went through gibbous (the word means "lop-sided") to full, which marks the half-way point in the cycle. Then waning, the half moon phase was reached again; three quarters of the cycle had passed, hence the "last quarter" was reached. And then back to invisibility when a "new moon" would be born.

One may wonder why the ancient people of the Near East used the absence of the moon as the starting point of the new cycle. Why not the full moon which is easier to see?

I don't know the answer to that question, but I have two guesses. One is that the re-appearance of the moon could be used as a subject for mystical speculations, something the ancients loved to do. The other is that, without instruments, it is not easy to say at what moment the moon is full, being a precise circle. It was easier to watch for the disappearance of the last thin sliver of the waning crescent. From past experience they knew how much time would elapse until the new crescent had to appear.

#### THE CUD-CHEWING RABBIT OF *LEVITICUS*

For a complete change of pace I am going to end this column with a reply to a letter from a reader in Oklahoma who wants to know why the rabbit is called a cud-chewing animal in the Bible, referring to *Leviticus* xi:5. Actually the answer is simple; the rabbit of *Leviticus* isn't a rabbit at all.

The verse says that the *zaphian* (or *saphian* is another transliteration) must not be eaten even though it is a cud-chewer, because it does not have the acceptable kind of cloven hooves. Even if the Christian translators of the Bible did not consider this a logical piece of reasoning, they were still confronted with the problem

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of translating it. Since the next verse said the same about the hare, there was a suggestion that the *zaphan* was fairly small and furry. The prudent thing would have been to leave the word untranslated, maybe with a hint that it does not occur in Europe.

Dr. Martin Luthier, who translated the Pentateuch around the year 1530, was not so prudent. He seems to have assumed that since verse 6 spoke of the hare, verse 5 must mean the rabbit; he put *Kaninchen* (the German word for rabbit) into his translation. Since he lived close to nature, in small towns where a 15-minute walk would get a man out into the fields, he should have known that neither the rabbit nor its close relative the hare ever chews the cud. Either he didn't know it, which would be quite strange, or else he succumbed to the translator's syndrome which reads: "It doesn't make sense — in fact I don't believe it — but I'm not writing this, I am only the translator."

The English translators who produced the King James version of the Bible, first published in 1611, also did not know the meaning of *zaphan*. So they followed Luther, using the word coney for rabbit. Meanwhile a German pastor, Hermann Heinrich Frey, had written a book on the animals mentioned in the Bible for your information

ble, which had been published in 1595. He took no stand on the question of whether rabbits and hares are cud-chewers, but just declared that "they are clean to Christians and very good to eat." It is presumed that his cook was good at preparing saddle of hare.

Well, since the *zaphan* is not a rabbit, what is it?

It is an animal that, in modern zoology books, goes under the name of hyrax. It is about a foot long, looks fat and fuzzy and stares at people with an expression of mild disgust and annoyance. But it looks at zebras, antelopes and even trees with the same expression. Because of its general appearance it was, at first, thought to be a rodent like the rabbit. But a closer look at the teeth made it clear that it was not. The great Cuvier declared that it was a primitive ungulate or hoofed mammal, and we still agree with the statement. Because of a fossil found in Egypt — long after Cuvier's death — we know that the hyrax is distantly related to mastodons and elephants, without being a direct ancestor.

If it had evolved it would have hooves; it might even be cloven-hoofed.

But it did not evolve. And it does not chew the cud.

—WILLY LEY

# GALAXY'S STARS

Last month we announced the winners of the First Annual Galaxy Awards, and the hands-down champion, out-pointing all of the 132 other stories published in *Galaxy* and *If* in 1968, was *Goblin Reservation*, by Clifford D. Simak. Simak's home is in Minnesota, and he likes it there; he seldom leaves, and so we met him in the flesh for the first time only a dozen or so years ago, when he was shepherding a troop of Boy Scouts on a trip to New York. More recently, he gave up his top editorial newspaper position to concentrate on a page of science features to be used in Minnesota schools.

There are those who wonder how someone who has been writing as long as Cliff Simak can keep his outlook so fresh and exciting. Maybe that's one reason: he works with youngsters, and keeps his views young.

Sylvia Jacobs has been appearing in *Galaxy* about as long as there has been a *Galaxy*. A Californian, she is married to a hard-hat diver, now retired from deep-water salvage and rescue opera-

tions and devoting himself to more pleasurable underwater occupations. Next time you're at Marineland of the Pacific, ask for the chief diver; that's Sylvia Jacobs's husband.

Robert Bloch is famous in that Great Big World Out There as the author of that mean and creepy story called *Psycho*, but in real life Bloch has the heart of a fan. (He keeps it in his desk drawer.) When Alfred Hitchcock made *Psycho* a by-word for horror and shock, the movie offers came flooding in. Bloch moved his activities from Wisconsin to California, where he has been writing any number of top TV shows and motion pictures ever since; but still he returns to us when he can — as in *How Like A God*, herewith.

James E. Gunn is an English professor at the University of Kansas. *Witch Hunt*, in this issue of *Galaxy* is a sort of follow-up story — not so much a sequel as a logical consequence — to *Trial by Fire*, which appeared in our companion magazine, *If*, a couple of months ago.

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